Trains

December

1944

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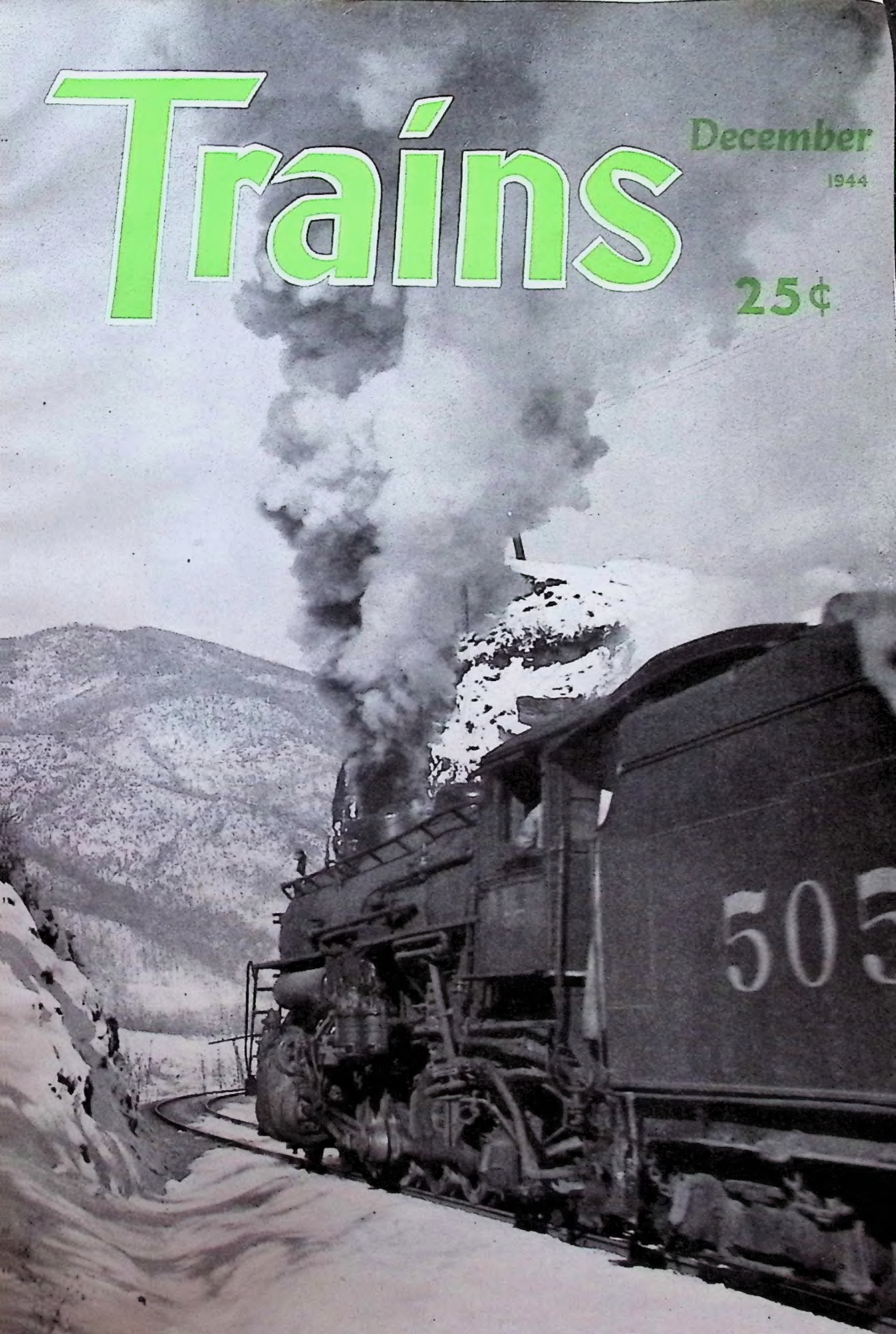


JUST BEFORE CHRISTMAS

. . . a few years hence

Pa chuckles to himself while taking inventory of his savings, accumulated during those trying war days of a few years ago. He now realizes that Mom's worries of the past few years, when it was necessary to go without so many things, little femininities as well as the necessities for the home, are now at an end.

With his maturing War Bonds, he knows that Mom can now have all those things she so much desired and deserves . . . new furniture and rugs, washing machine, radio, vacuum cleaner and other household equipment as well as stylish clothes so dear to a woman's heart.

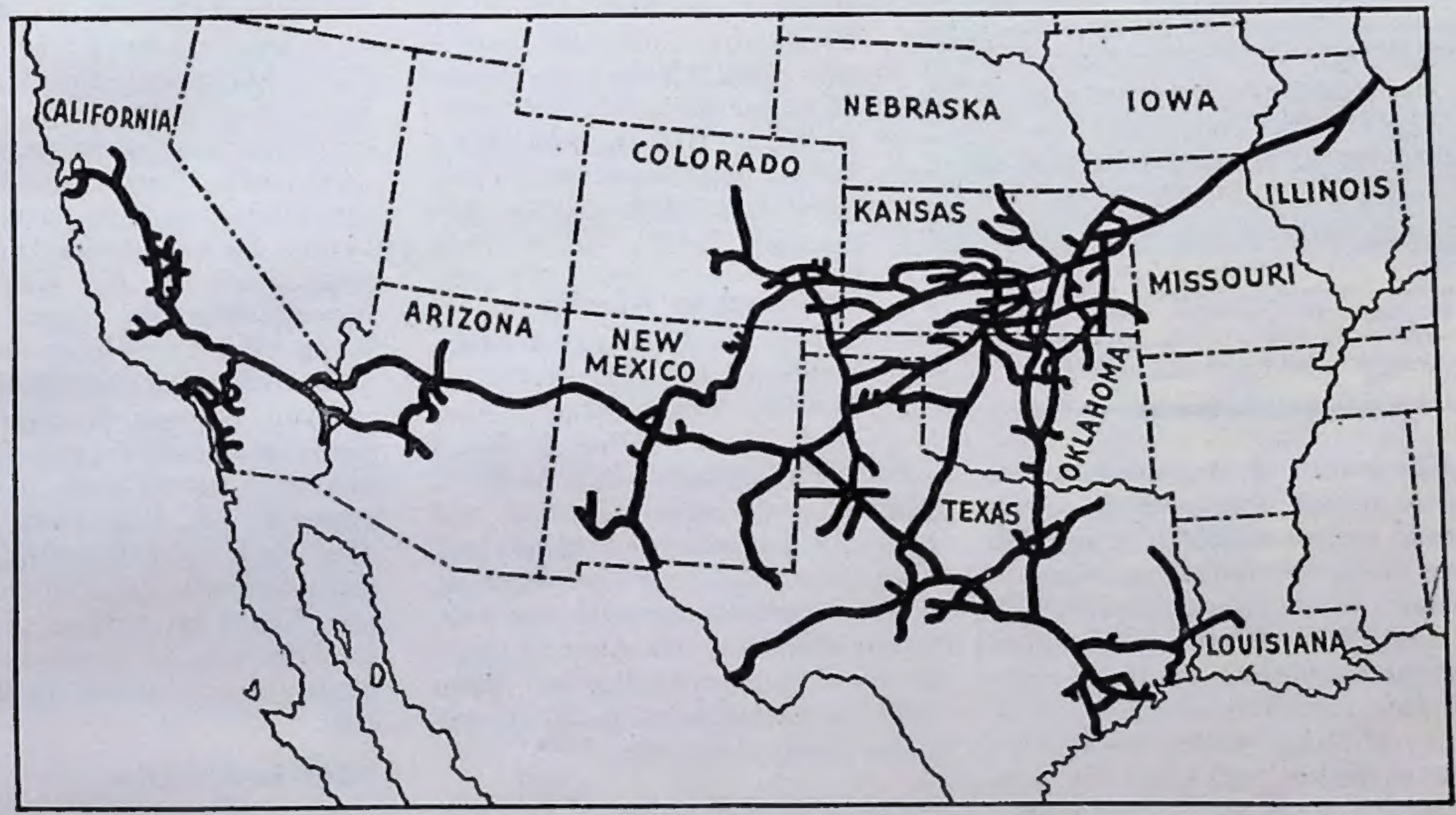
And they can also take that wonderful vacation trip that they have been planning for and travel in utmost comfort on one of the new, fine, fast ultra modern C & E I trains . . . and best of all their son and daughter now home after serving in the armed forces of the nation will be with them.

★ It looks like it's going to be a real Christmas.

Chicago & Eastern Illinois Railroad

C&EI

Along the "Route to Tokyo"



Santa Fe, as the map above shows, is an important lap on the "Route to Tokyo."

That's why, during the past several months, travelers have seen armies of "Men at Work" all along our lines.

Capacity of our yards has been increased.

Curves have been ironed out so trains may get around them faster.

New Diesel "head ends" are pulling bigger loads up mountain grades.

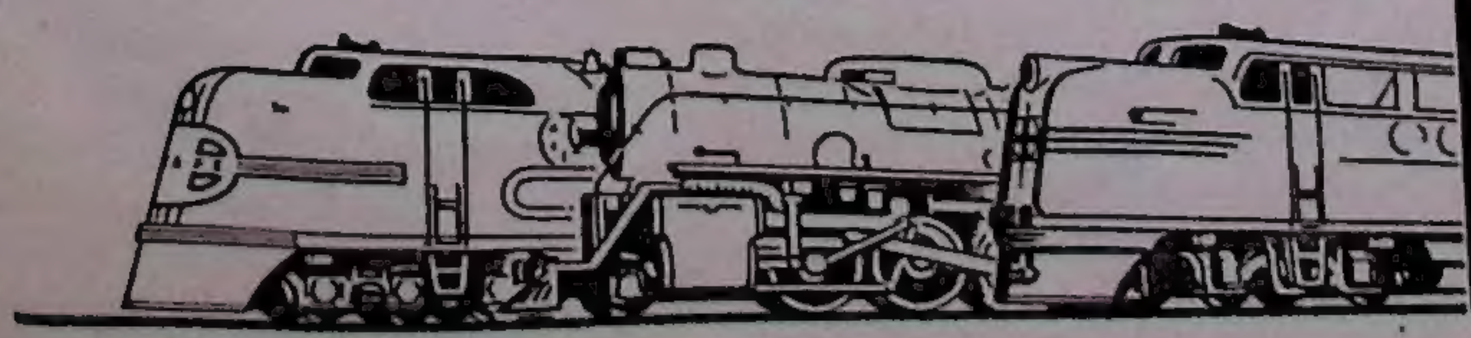
Ingenious Centralized Traffic Control Systems have been installed at important points so the same rails can carry 50 per cent more traffic.

A new Santa Fe bridge is now being built across the Colorado River.

We have enlarged our capacity to meet the increasing loads of war. There will be no slackening of our job until the war is completely won.

SANTA FE SYSTEM LINES

One of America's Railroads — All United for Victory



Santa Fe

Trains

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American railroads produce the world's most efficient common-carrier mass transportation and are the foundation of our country's industrial productivity.

LAST month I stumbled across one of those unexpectedly busy railroad scenes which exist at small towns along the mainline railroads. Oakdale, Tenn., population 900, is on the Obed River 254.5 miles south of Cincinnati on the Southern's line to Chattanooga. No. 3, the *Royal Palm*, pulled in at 2 p. m., took water, and just as it was leaving in came No. 4, the northbound *Royal Palm*. No. 4 wasn't even out of the station when Second No. 3, a collection of express and mail cars with a rider coach, rolled down the valley to a stop. The station stop was quite long, with much head-end traffic to be transferred, and meanwhile a southbound freight dragged slowly to a respectful stop behind Second 3's flagman. Both waited for Second No. 4 to arrive over the single track south of the station, and then left. While Second 4 was doing station work, the three-car local for Knoxville loaded on a yard track. I left on the local, and just south of Oakdale we passed not only the freight which had preceded us but another as well. Then, while we waited on a wye track at Harriman, four miles south, a northbound freight swung gracefully around a huge bluff and crossed the river on a mainline bridge a half mile or so away.

More CTC on Rock Island

The Rock Island will install 158 route-miles of additional centralized traffic control as soon as materials are received. This will bring the total C.T.C. mileage on Rock Island up to about 500 miles, including 180 miles on double-track territory between Chicago and Rock Island. The new installations will be 127 miles between Caldwell and Herington, Kan., and 31 miles between Dallas and Fort Worth, both on the mid-continent route from Minneapolis to the Gulf. Because of the more efficient movement of trains under C. T. C., it is estimated that the new installations will save 39,518 car-days and 1473 engine-days annually.

Railroad to Alaska

The Pacific Great Eastern, featured in this issue of TRAINS, came nearer than most of us realize to being part of a wartime rail route to Alaska, and come peace it will certainly be extended northward. The Seattle *Post-Intelligencer*, which originally brought the road to our attention, has devoted pages of space to publicizing it. Naturally the extension of the PGE will mean much to Seattle.

Presidential Routing

An unusual problem arose on one of the recent Presidential campaign trips when the White House authorities requested a special train to be operated from Chicago to Washington via Clarksburg, W. Va. A glance at the Baltimore & Ohio map will indicate that the logical route would be by way of Warwick, Wheeling and New Martinsville. After the route was agreed upon, the question of a schedule caused plenty of head-scratching, for there had not been a scheduled passenger train on the Short Line from Brooklyn Junction (New Martinsville) to Clarksburg in more than 10 years. As a matter of fact, for some years previous to that the passenger motive power had been gas-electric cars, so a real problem arose in attempting to schedule a 13-car train, to be powered by a 4000-horsepower Diesel locomotive. The problem was not made any easier by the fact that the only existing schedule between Warwick and Benwood Junction was that of No. 58, a local train making all stops. Needless to say, the railroad people were very anxious to make the trip a smooth one, and as a result, the schedule finally set up called for a mere 30 m. p. h. average speed. This isn't quite as slow as it sounds, however, for much of the line is winding and hilly, with numerous restrictions.

SP Enlarging Tunnel

The Southern Pacific has found it necessary to enlarge the bore of its Tunnel No. 6, on the Coast Line between San Luis Obispo and Santa Margarita. This single-track main line between Los Angeles and San Francisco is under centralized traffic control and is averaging 70 per cent more trains than before the war, with the average train some 30 per cent heavier. Nevertheless, the tunnel work is being done without interfering with traffic. A pilot tunnel is being run through the mountain directly above the main bore, and this pilot tunnel is to be used for removal of excavated material. The work is progressing satisfactorily and when it is done the pilot tunnel will be used as a means of drawing engine gases out of the main tunnel, which is 3610 feet long.

C&O Test Train

The Chesapeake & Ohio recently ran a test train from Washington to Cincinnati in 12 hours 12 minutes, including a half-hour delay en route. The run was made in an effort to ascertain the possibility of a 12-hour postwar schedule between the two cities. The present schedule of the *George Washington* is 14 hours 29 minutes.

L&N Postwar Plans

In the immediate postwar era the Louisville & Nashville plans much replacement of old equipment and as a starter has on order 28 lightweight aluminum passenger cars, costing 2½ million dollars, and eight 2000-horsepower Diesel road locomotives costing around 1½ million dollars. Materials for 20 of the passenger cars have already been allocated by the W. P. B. At first opportunity much of the lighter rail on main lines will be replaced with 130-pound. Three new coal branches totaling 14 miles are now under construction and will add to the nation's coal supply in postwar years.

Competitive Notes

During 1942 the air lines of the United States were paid appreciably more for carrying 5.53 per cent of non-local first-class mail than the railroads received for carrying more than 94 per cent. . . . More public money is invested in LaGuardia airfield alone than all the private capital invested in commercial airplanes in the country. . . . According to Dr. E. P. Warner, vice-chairman of the Civil Aeronautics Board, the lowest postwar airport-to-airport basic cost for air merchandise transport will be at least 14 cents a ton-mile. Fuel alone costs three cents a ton-mile. Compare this with average railroad freight revenue, which includes more than just transportation cost, of less than a penny a ton-mile.

To Streamline Empire Builder

Daily streamliner service between Chicago and the Pacific Northwest will be inaugurated by Great Northern as soon as new equipment is available. The Great Northern's streamliner program is the first to be announced by the northern transcontinental lines operating between Chicago and the north Pacific Coast.

F. J. Gavin, president of the GN, said that purchase of five complete new trains, including Diesel locomotives, has been authorized at a cost of approximately seven million dollars. Construction of the new trains, which have been on order for a year, will begin as soon as materials are released by the War Production Board.

Consist of the new train, for which the name *Empire Builder* will be retained, will include ultramodern coaches, sleeping, dining and observation-lounge cars. Power will be two-unit Diesel-electric locomotives. Cars will be built by Pullman-Standard, and the locomotives by Electro-Motive.

Freight-Rate Increase

After 17 consecutive months of declining net operating income, the railroads recently applied to the Interstate Commerce Commission for restoration of a 4.75 per cent freight-rate increase which was granted them in compensation for a wage increase in 1942 and later suspended on petition of the O. P. A. The original suspension was for six months, and the railroads voluntarily continued the suspension for two additional periods, but the second wartime wage increase, forced on the railroads last winter, together with increased material costs, has started an unmistakable downward trend in earnings, in spite of heavy war traffic. The over-all rate of return on property investment for all Class 1 railroads is now only 4.10 per cent, and 14 Class 1 roads failed to earn interest and rentals so far in 1944.

The O. P. A. opposes the increase on the grounds of price stabilization, but the roads contend that the prices and wages they pay have not been held down, and, in fact, wages are up 25.6 per cent compared with prewar, material prices are up 27.7 per cent, while freight rates are actually 5 per cent below 1939 levels.

New Swiss Passenger Cars

Despite the war, the Swiss Federal Railroads have put into service new lightweight first- and second-class coaches and dining cars. The green-painted coaches weigh only 28 tons as against a former weight of 40 tons, while the diner weighs 33 tons instead of 48. A trolley on the diner draws current from the overhead for electric cooking.

Odds and Ends

The Kansas City Southern is sponsoring a 20-week series of Thursday evening broadcast concerts by the Kansas City Philharmonic Orchestra. . . . The Santa Fe will install centralized traffic control on 26 miles of its Houston-Galveston line. . . . The Southern Pacific will install C. T. C. on 53 miles of its Overland Route, Salt Lake Division, between Lemay, Utah, and Bridge. The control machine will be at Ogden, 30 miles east of the beginning of controlled territory. . . . After a currently authorized bond redemption, the Santa Fe will have fixed charges of only nine million dollars annually, compared with 13 million dollars before the war.

The Pittsburgh & West Virginia station in Pittsburgh, which still stands as a monument to the great Gould transcontinental scheme, now serves as American Red Cross headquarters for the city. It was originally destined for the scrap pile, but cost of dismantling would have been more than scrap value. . . . With new types of equipment come new rules and operating practices. On the freight Diesels, which have cabs at both ends, B&O prescribes that the head-end brakeman ride in the rear cab where he can look back over the train! . . . The natural advantages of the Southwest, plus the increasing tendency of American industry to decentralize, is bringing many new industries to the territory of the Frisco, according to Chief Traffic Officer Russel Coulter.

A. C. Kalmbach.

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Pacific Great Eastern

BY DOUGLASS WELCH
Staff Writer, Seattle Post-Intelligencer

Grandly scenic 347-mile British Columbia road is railfan's heaven; will be extended toward Alaska

The Pacific Great Eastern is a standard-gauge misnomer. It is not great, it does not operate in an easterly direction, and its corporate history has been anything but pacific.

It starts nowhere in particular and it terminates nowhere in particular, but the 347 miles of mountain and plateau scenery which unfold so slowly outside the windows of its bright-red sleeping cars, diner and day coaches are the most magnificent and moving in the North American West.

Take equal parts of Logan Pass in Glacier National Park, the Grand Canyon of the Colorado, the Grand Tetons of Wyoming, and Colorado's beautiful South Park mountain meadowland, and you have a faint—only a faint—approximation of British Columbia's caribou country through which the PGE ("Please Go Easy") wends its delightful and completely informal way.

It's a railfan's heaven and a Hollywood picture-set the whole way, peopled by Indians, red-coated "mounties," prospectors, trappers, cowboys and early settlers. It's an old country and still a primitive one whose fabled history dates back to the turn of the 19th century. It was opened and first exploited by the Hudson's Bay Company, and people have been living at Quesnel, northern terminus of the railway, since 1805. In fact, Quesnel was a bustling frontier community when San Francisco was no more than a mission and a few outlying Indian adobe huts.

You will find the Pacific Great Eastern's timetable in the back of the *Official Guide* sandwiched between the Canadian transcontinentals and the National Railways of Mexico. It first began to appear in the *Guide* about 1915, when it was being built to afford an access to Vancouver for the old Grand Trunk Pacific.

The Grand Trunk Pacific, you will recall, was built by private capital, assisted by provincial subsidies, from Quebec to the Pacific port of Prince Rupert. The original plan did not contemplate the Grand Trunk's entry into Vancouver, which was already being well served by Canadian Pacific and by the roughly parallel Canadian Northern, which was also then in the process of becoming a transcontinental.

Encouraged undoubtedly by the Grand Trunk, private interests began to build the Pacific Great Eastern from Vancouver to Prince George, a point on the Grand Trunk Pacific. Built in sections, the line became an entity between Squamish at the head of Howe Sound, 40 miles from Vancouver, and Quesnel, about 80 miles south of Prince George. The route was graded between Quesnel and Prince George, bridges were erected and some rail was laid, but this section was never operated and most of the rail was later removed. Between Vancouver and Squamish some 12 miles were laid and operated for many years, but are now abandoned. Between Squamish and Whytecliffe are 28 miles of expensive and difficult shoreline sidehill rock construction, and it is doubtful that the gap between Squamish and Vancouver will ever be closed by rail. Connecting service now is provided by rail car ferry and passenger steamboats.

Before the Pacific Great Eastern could quite link Vancouver with the Grand Trunk Pacific, the big transcontinental went into bankruptcy. Subsequently it was combined with the Canadian Northern into the Canadian National Railway System. Suddenly there was little

By Sgt. Robert W. Kelley, U. S. Army.

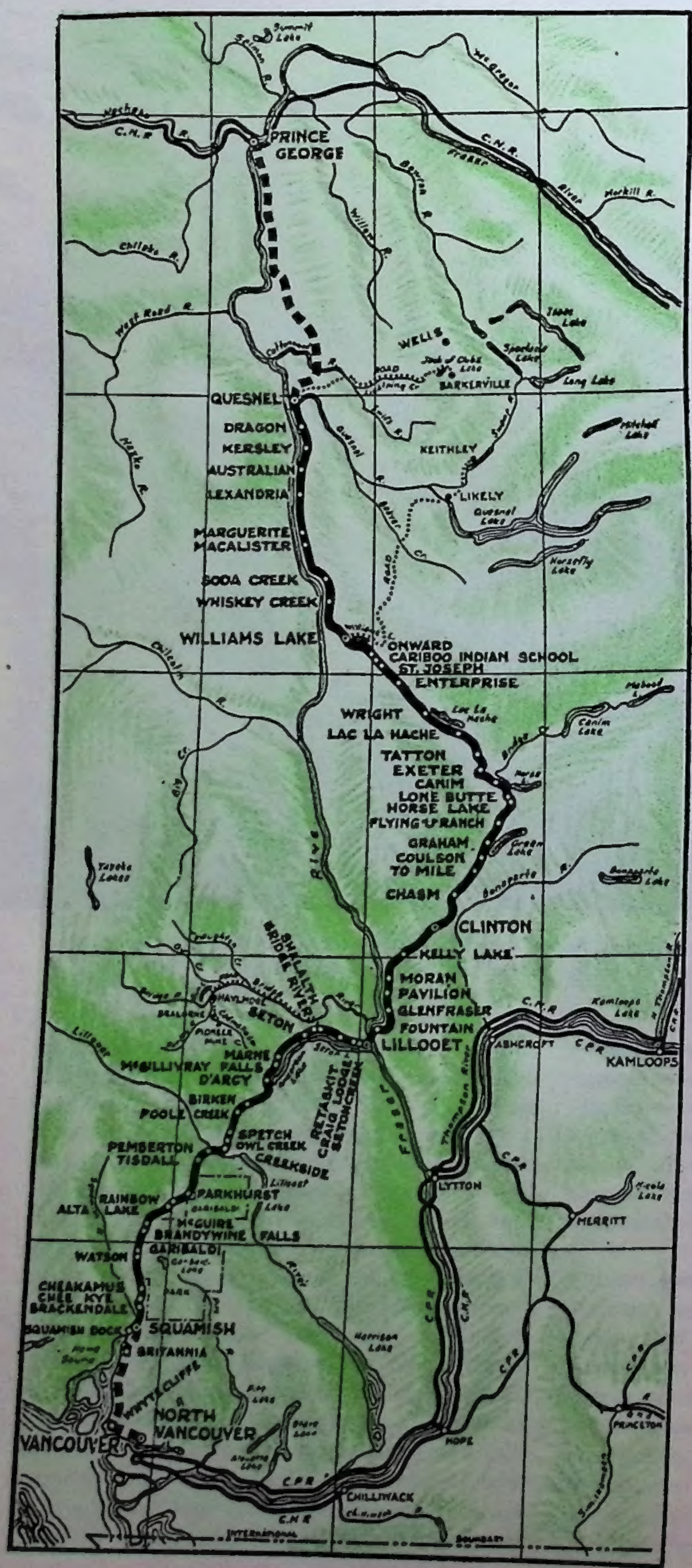
Pacific Great Eastern train in Cheakamus Canyon, photographed from the open observation car. In this canyon the road threads its way around curves up to 14 degrees and up a 2 per cent grade.

reason for the Pacific Great Eastern to exist—none as bridge line between Prince George and Vancouver. The Canadian National already had access to Vancouver over its component Canadian Northern, and the old Grand Trunk Pacific line to Prince Rupert became little more than a branch (a pretty important branch, however, since the war).

The PGE promptly went bust, too, with a bang which was heard all over the province. Because the provincial government had underwritten its securities, however, it was continued in operation as a provincially dominated private corporation, and such is its status today.

The PGE's debt is well over 90 million dollars, a fair chunk of jack. The line makes its operation expenses and a little extra each year for the cooky jar on the kitchen shelf, but nothing like enough to pay off 90 millions in a thousand years—unless, that is, something happens.

Well, something *is* going to happen. It almost happened, in fact, a year or two ago, when the American Government began thinking out loud about a railway from Prince George to Fairbanks, Alaska. The American railroad to Fairbanks came closer to being realized than most people know, and it would be in operation today if the Japs had not been so comparatively easily dislodged from the Aleutians. The survey had been completed and specifications were out for bridges and culverts and special trackwork in the spring of 1943, when the War Department announced there was no longer any immediate urgency and that the plan would be tabled for the time being.



The Alaskan railway would have been the salvation of the PGE. A glance at the map will clearly indicate why. If American transcontinental lines terminating at Seattle and serving Vancouver were to share in Alaska business, they would have to have independent access to the Alaska Railway at Prince George. Otherwise the Canadian National would have insisted on the long haul from Prince George to Winnipeg and would have been in a position to insure it.

The Great Northern has a direct line into Vancouver from Seattle and the Northern Pacific has a branch line from Seattle which connects with the British Columbia Electric at Sumas on the international boundary line. Northern Pacific cars are handled into Vancouver over the electric line. Both of these railroads could have insured the long haul from eastern markets to Alaska for themselves if they had access to Prince George over the PGE.

Even in the handling of north-south traffic the PGE is advantageously situated. Traffic moving from Prince George to Vancouver over the Canadian National must now move east to Red Pass Junction and thence westerly to Vancouver, around two sides of a triangle. The PGE is built roughly across the base, the difference in mileage saved being approximately a full freight-train day. (A glance at the CNR maps in the *Guide* bears this out.)

Before the PGE could ever become a bridge line between Prince George and Vancouver, the abandoned 80 miles from Quesnel to Prince George would have to be rehabilitated. Until last July this prospect seemed remote. In July, however, Premier John Hart of British Columbia announced that his government was prepared to expend 30 million dollars to ex-

tend the PGE not only to Prince George but about 200 miles beyond to the rich and undeveloped Peace River country in the vicinity of Dawson Creek, the present northern terminus of the Northern Alberta Railways. Mr. Hart was not being altruistic; he wanted to insure that the grain and anthracite of the Peace River country flowed down into British Columbia rather than into Alberta. And the most conservative estimates of this potential coal traffic indicate that the Pacific Great Eastern would have enough business not only to support itself handsomely but also to retire the debt in a decent interval.

The extension is to be built as soon after the war as possible. An Alaskan railway to Fairbanks, too, is inevitable, not only for the commercial development of the territorial interior but for its military protection and supply as well. And just as inevitable is the Pacific Great Eastern's becoming a part of such a system.

So much for the history and future of the road. An analysis of the physical property and a description of the country through which it passes will be much more interesting.

Sgt. Robert W. Kelley, U. S. Army.

Picking up an extra coach for No. 2 at Parkhurst. Road engine is on the right, helper on the left.

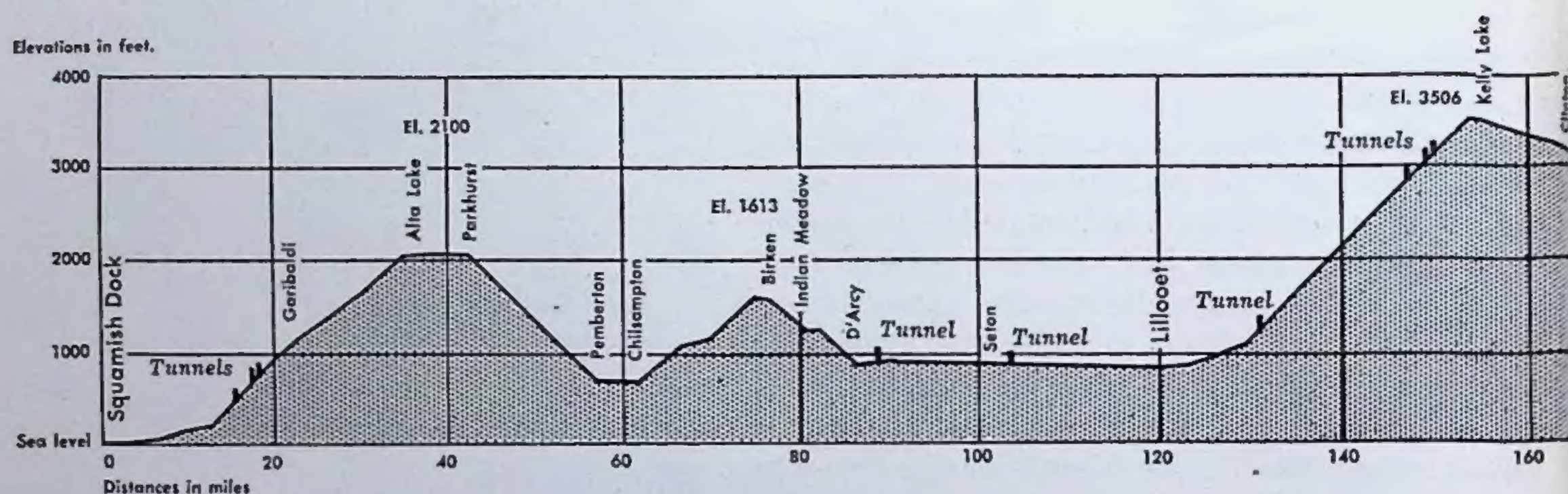
THE PGE was lightly built but superbly located by one of the greatest location engineers of recent times, John Callaghan. It was Callaghan's problem to take a line of rail from Howe Sound across British Columbia's rugged coastal mountains, across the deep canyon of the Fraser River beyond the high plateau country of the caribou, and thence to parallel the Fraser to Prince George. Instead of following drainage he had to cross drainage along much of the route, and he had to avoid the sloughing walls of the upper Fraser, which explains the sweeping detour (see map) between Moran and Whiskey Creek.

Not the least of his problems of location was the 2200-foot climb between Lillooet and Moran up the Fraser Canyon. Above Moran, passengers can look straight down 2200 feet from their car windows to the river below, scarcely larger than a hair ribbon. This sight is more breathtaking than the Grand Canyon of the Colorado, and in full moonlight is out of this world.

The line crosses the tidelands from Squamish Dock and plunges into and up the precipitous

With sleepers right up to baggage car, this is a special train used by the Seattle Chamber of Commerce in 1942 for a trip over the PGE.

Al Williamson; courtesy Seattle *Post-Intelligencer*.



canyon of the Cheakamus River, a turbulent stream of many waterfalls and potholes. This canyon in places is scarcely three times the width of the right of way, and the exhaust of the laboring locomotive echoes and re-echoes from towering walls of rock. The line crosses the river from side to side on steel bridges, fighting for a foothold, threading its way on 10- and 12- and even 14-degree curves up a 2 per cent grade. At high water, spray and mist often form on the car windows, and passengers on the open-air observation car behind are either downright appalled or wildly delighted by this intimate nearness to nature.

At Alta Lake, a distance of 37 miles, the line emerges from the canyon into a country of alpine lakes, mountain meadows and picture-postcard mountains, strongly reminiscent of Logan Pass in Glacier Park. From Alta Lake (elev. 2100) the line descends on a gradual grade to Parkhurst, Milepost 42 (elev. 1927), then descends a grade of 2 per cent to Pemberton, Milepost 57 (elev. 700). Pemberton is located between two parallel ranges of mountains in the Lillooet River Valley, a tight little valley but agriculturally very rich. From Pemberton the rails ascend through this second range on a 2 per cent grade to Birken, Milepost 76 (elev. 1613), then descend a 2 per cent grade to D'Arcy, Milepost 86 (elev. 850).

From this point it is practically a level run into Lillooet, a distance of 34 miles. And this is by far the most scenic part of the southern portion of the line. Much as the Canadian Pacific hugs the north shore of Lake Superior, the Pacific Great Eastern skirts the shores of two lakes, Anderson and Seton, together about 30 miles in length. These lakes are relatively narrow, and the mountains on the opposite shore rise abruptly from the water's edge.

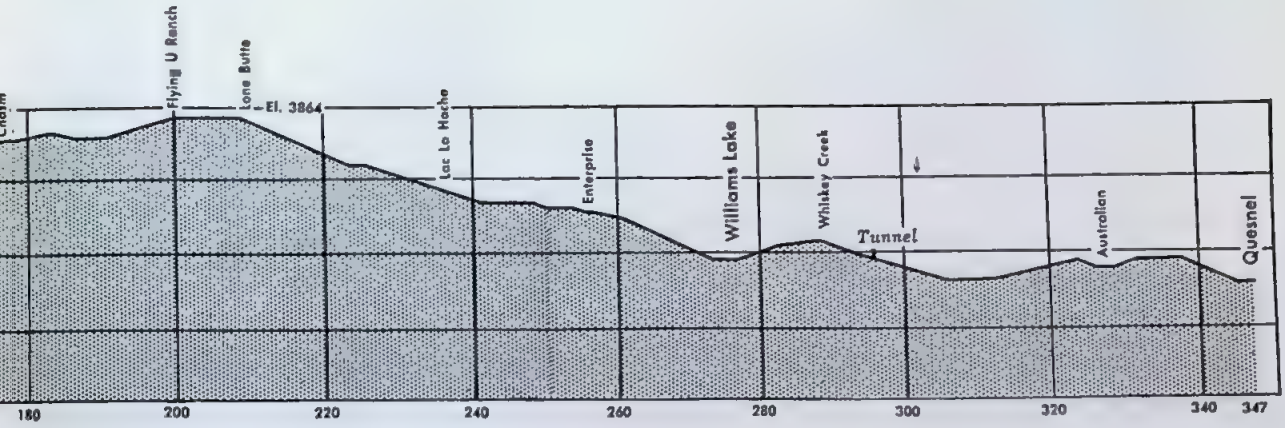
A number of small tourists' resorts are located in this area, but, discounting the visitors, this is strictly Indian country and a country without roads. It is the custom to walk and ride horseback over the PGE right of way, and not infrequently the trains flush a mounted Indian or two out of a tunnel. On one of the two trips I made over this line, we were delayed several minutes by an Indian horseman ahead who could not find a place sufficiently wide to accommodate his horse and permit the passage of the train. The crew took it pleasantly as a matter of routine.

In this section blanketed Indians are to be seen at many backwoods flag stops; and the mortar-chinked log cabin is common.

From Lillooet, which is on the Fraser River, the rails climb a 2.2 per cent grade to Kelly

Al Williamson, Vancouver, B. C.

Passengers walk from southbound trains to view Brandywine Falls, near right of way. Business car Bridge River, on end of train, was formerly a parlor-observation car on the Oregon Electric and has been rebuilt with two sleeping compartments and seats for 18 in the observation end.



Lake, Milepost 155 (elev. 3506), then descend a 0.75 per cent grade to Clinton, Milepost 165, from where they ascend a 1 per cent grade to Horse Lake Summit, Milepost 206 (elev. 3864), then descend to Quesnel, Milepost 347 (elev. 1600), on a 1 per cent grade.

From Lillooet to Quesnel the railroad operates through what is known as "the dry belt." This is a high plateau country, surprisingly green, very park-like, in which the PGE's main freight traffic originates—cattle. Most of the range is unfenced and trains are frequently delayed by herds moving along the tracks. Engineers sometimes drive these herds ahead of them for 5 to 10 miles, alternately exhausting steam from the cylinder cocks to keep the cattle from doubling back and fouling the locomotive and cars.

The roadbed is generally in excellent condition and well drained. Ballast is mostly pit-run gravel. Ties are untreated fir, 7″ x 9″ x 8′-0″. Tie plates are used on curves only, but there is very little evidence of cutting on tangents. Rail is in good line and surface, and battered joints are few. Passing tracks are short and yard facilities are limited, but are adequate to accommodate present business. Bridges are designed for E-55 loading with one exception, which is E-50.

Eleven locomotives are on the power roster, all of them light: three Mikados and five Consolidations for road work, and three Mikados for yard service. In addition, two motor cars are used for passenger service, mostly between Lillooet and Shalalth, where the railroad operates a rail ferry for motorists wishing to use the road between Shalalth and Bridge River mining development. Automobiles are loaded on flat cars and pulled behind the motor cars.

The road's three steel sleepers were built by Pullman for use on an American Middle West electric line and are 10-section cars, somewhat smaller than standard, but beautifully fitted out and nicely maintained. Origin of these cars is somewhat uncertain; they may have come from the Illinois Terminal but one school of railfans insists they came from the old Interstate and were in service between Indianapolis and Louisville. The present management of the PGE doesn't know offhand and couldn't ascertain without a laborious search of the records. It is recalled, however, that the Illinois Terminal was approached on the question.

Two wooden sleepers, said to have been purchased from the Oregon Electric, are used

Douglass Welch; courtesy Seattle *Post-Intelligencer*.

Another view from the rear end of a Pacific Great Eastern train in Cheakamus Canyon, showing the ruggedness of the country. This is southbound train No. 2, on the 2 per cent downgrade.

Douglass Welch.

Toward the lower end of the Cheakamus Canyon the country flattens out into the tidelands which the railroad crosses to Squamish Dock, southern terminus and ferry connection point for Vancouver. This photo was taken at the bottom of the 2 per cent grade.

only for overflow service. The line maintains two dining cars, one in regular service and one as relief. The principal diner is a rebuilt motor car formerly in service between North Vancouver and Whytecliff over a section which has been abandoned. Dining-car prices are most reasonable (breakfast, 35, 50 and 65 cents; lunch, 75 cents; dinner, 75 cents) and the food is excellent. Part of the dining car is given over to a lounge. Between Squamish and Lillooet in each direction the railway operates an open-air observation car, and hopes soon to be able to operate this equipment throughout the system in summer months.

Freight equipment consists of 44 box cars (40-ton), 83 flat cars (40-ton), 6 refrigerator cars, 44 stock cars, 10 steel tank cars, and 26 logging flats. Work equipment includes a Marion-60 2½-yard steamshovel, a Bucyrus-90 4-yard steamshovel, a Marion ¾-yard ditcher, a pile driver, drop hammer, an industrial Brown hoist locomotive crane, a Russell wooden wedge plow, 2 air-operated flangers, 20 Western steel air-dump cars (20-yard capacity), 12 wooden Hart cars (27-yard capacity), 12 steel Hart cars (40-yard capacity), a Jordan spreader, a center plow, a side plow, and 2 Lidgerwoods.

Trains operate twice weekly connecting with Union Steamship Company vessels in both directions at Squamish. Trips leave from Vancouver at 9 a. m. Monday, arriving at Squamish at 2 p. m., leaving Squamish at 2:10 p. m. to arrive at Quesnel at 1 p. m. Tuesday. Departing from Quesnel at 5 p. m. Tuesday, trains arrive

Douglass Welch.

Station at Lillooet seen from the rear end of southbound train No. 2. This is in the most scenic section of the line, and except for a few tourist resorts is strictly Indian country. Near here the railroad skirts the shores of two clear mountain lakes, with cross-lake mountain views similar to those in the Grand Tetons of Wyoming.

Gerald Murison; courtesy Seattle *Post-Intelligen*

Upper Fraser River Canyon from PGE train

More breathtaking than the Grand Canyon of the Colorado is the view of upper Fraser River Canyon from Pacific Great Eastern trains. Above Moran the river, scarcely wider than a hair ribbon, is 2200 feet below the car windows.

Gerald Murison; courtesy Seattle *Post-Intelligencer.*

End of the line for Pacific Great Eastern at the present time is at Quesnel, British Columbia, picturesque and very old frontier town at the junction of the Fraser and Quesnel rivers. Here red-coated Royal Northwest Mounted Police chat on street corners in front of hundred-year-old buildings which originally may have been outposts of the Hudson's Bay Company. PGE bridge in left foreground crosses Quesnel River. Bridge in background is highway span across Fraser River.

Courtesy Pacific Great Eastern.

Train at Williams Lake. Ahead of the Bridge River business car are, in order, a sleeper, diner, coach, and baggage car. This is not a representative train, as most runs today have three sleepers, diner, and at least two day coaches. The regular steel sleepers came from a midwestern electric line, and two wooden sleepers, used only for overflow traffic, came from Oregon Electric.

Gerald Murison.

An accommodation train, with day coaches, diner, and sleepers coupled behind freight cars, winds along the shore of beautiful Lake La Hache. The water is so clear that the bottom can be seen far out from shore.

Courtesy Pacific Great Eastern.

This Lima-built Mikado of 43,000 pounds tractive effort is one of 11 Pacific Great Eastern locomotives. Six are Mikes and five are Consolidations. In addition, two motor cars are used for passenger service on an intermediate section of line where many autoists are ferried between sections of road, their automobiles being pulled behind on flat cars.

back in Squamish at 3 p. m. Wednesday. The boat arrives in Vancouver at 7 p. m. Wednesday. The second trips leaves Vancouver Thursday and returns Saturday, following the same schedule.

During summer months an additional trip between Squamish and Lillooet, for accommodation of resort tourists, leaves Vancouver by boat at 9 a. m. Saturday and returns at 7 p. m. Monday. This is a day-coach train with open-air observation car and is somewhat inferior to the through train.

Because the PGE is provincially owned and serves a politically aggressive area, fares have

Freight is ferried between Vancouver and Squamish on car floats like this one of 14-car capacity. Passengers are carried in steamships. In 1915 the road was originally projected through by rail to Vancouver, and this portion is still shown as "projected" on company maps.

Courtesy Pacific Great Eastern.

Sgt. Robert W. Kelley, U. S. Army.

One of Pacific Great Eastern's Consolidations switches freight at the Quesnel end of the line. After the war the road will be extended north of Quesnel on right of way graded at time of original construction.

been hammered down to the minimum. This is one of the cheapest railroad trips in the American West. Roundtrip fare, Vancouver - Quesnel - Vancouver, is $26.30 (including both boat and rail) or only $23.67 in American funds at the present exchange. There is only one class fare. Sleeping-car passengers pay $4.15 for a lower berth and $3.45 for an upper berth in each direction.

Freight trains are operated between Squamish and Lillooet, but between Lillooet and Quesnel the passenger train handles freight business as well. Engineers have learned to handle these combination trains nicely, and the taking-in and letting-out of slack is seldom noticeable in the passenger cars.

Unfortunately, the Fraser River Canyon is passed in both directions at night, but passengers may view it by moonlight northbound and by dawn southbound. The latter involves rising at 5 o'clock in the morning, but the sight is well worth the effort.

W. H. Tobey, general manager, is very much passenger-minded, and rail fans are always given special consideration. The Seattle *Post-Intelligencer* has given this line

Douglass Welch; courtesy Seattle *Post-Intelligencer*.

Quesnel station is not exactly a big-town terminal, but when the road was built back in 1915-16 Quesnel was not supposed to be the end of line but only a way station. Original northern objective was Prince George, on the Canadian National line to Prince Rupert, but present plans are for a postwar extension still farther north into the Peace River country.

Sgt. Robert W. Kelley, U. S. Army.

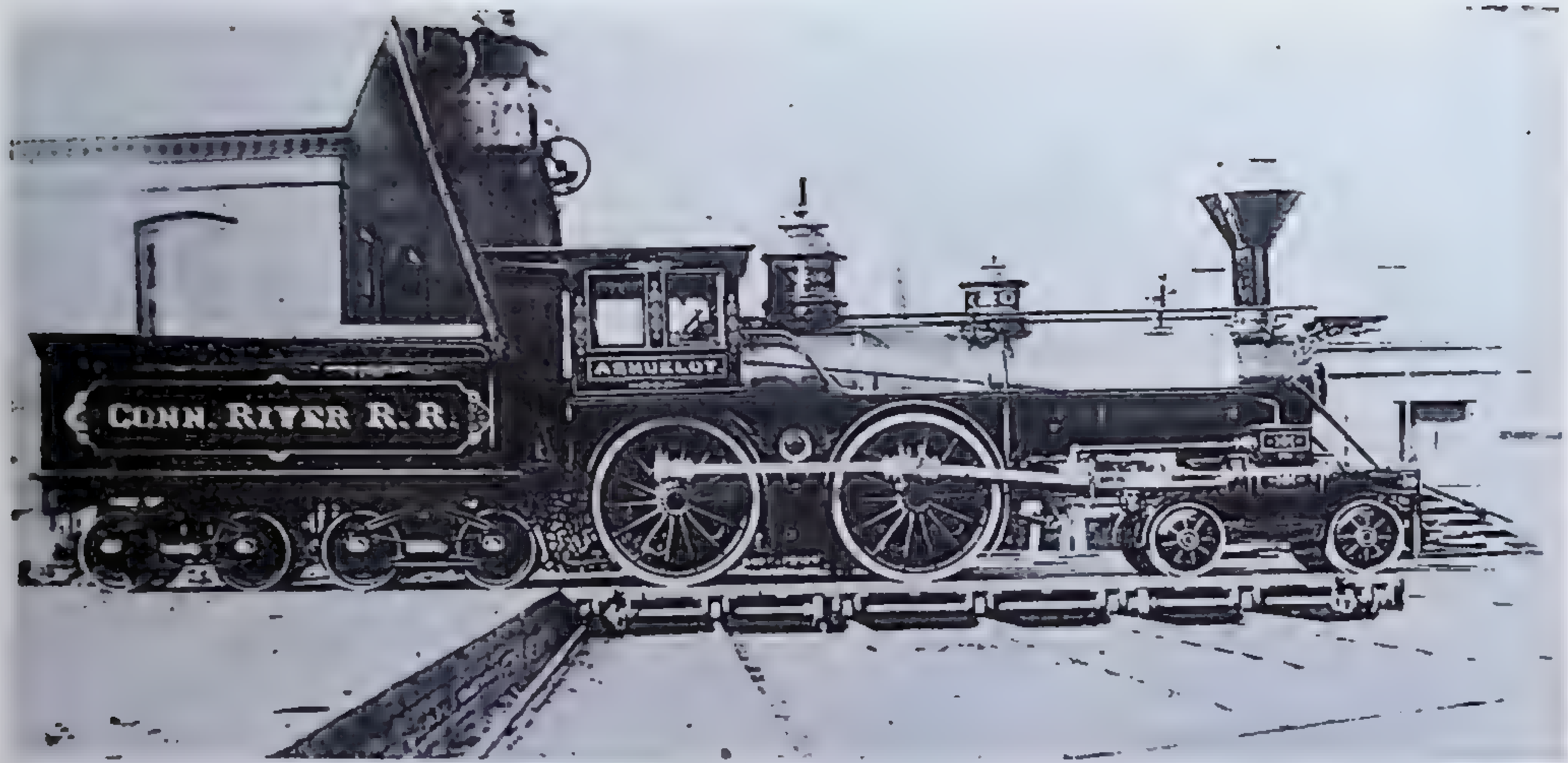
On the Quesnel Division, north of Deep Creek bridge. On this end of the line freight cars are handled on the front end of passenger trains. Despite this the enginemen are very adept at handling trains smoothly.

much publicity in the past two years and several hundred Americans have gone over the route since. Its American business is steadily increasing, and Tobey has great plans for postwar development.

Aside from the scenic beauty of the country it serves and the novelty of its operation and equipment, the one thing the tourist most esteems is the extreme friendliness of the personnel—a friendliness which extends from the general manager right down to the sleeping-car porters and the dining-car steward. This friendliness is the PGE's most valuable asset today.

Douglass Welch.

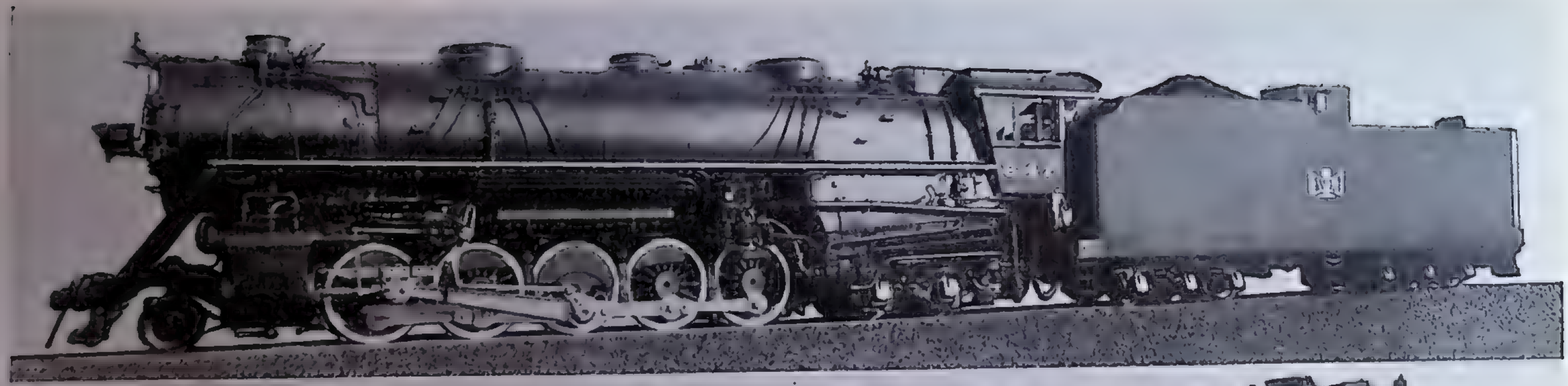
Train No. 1, with the general manager's business car on the rear end, has just arrived at Quesnel. Northbound train gets into Quesnel at 1 p. m. on Tuesdays and Fridays and leaves at 5 p. m. the same day. Thus the southbound trip covers somewhat different portions of the line in daylight, and passengers get to see all but about 100 miles of the entire road.



Both photos from collection of C. E. Fisher, 20 Wilde Dr., Waban 68, Mass.

A Couple of Tauntons

One of the earliest locomotive-building plants in New England was the Taunton Locomotive Works at Taunton, Mass., which began building locomotives in 1847. Although beset by difficulties at the start, the plant managed to build seven locomotives between May and December that first year. The fame of its products spread to all parts of the country, and its engines were seen on eastern lines such as the Connecticut River Railroad, which ran north from Springfield, Mass., and on western lines such as the Atlantic & Pacific, which was to have run from Missouri to the Pacific Coast but whose properties were divided by the Santa Fe and the Frisco when it got into financial difficulties. The Ashuelot, above, was Taunton Locomotive Works No. 731, built in March, 1880, with 16″ x 24″ cylinders and 60″ drivers. It weighed 67,250 pounds. A&P No. 84, below, was Taunton No. 766, built in January, 1881, with 16″ x 24″ cylinders and 54″ drivers and weighing 71,250 pounds. Both the Connecticut River Railroad and the A&P furnished their own headlights after delivery, which explains the absence of the lights in these builder's photos.



Two New Freight-Haulers

You may never ride one of Bessemer & Lake Erie's four passenger trains, for they do a purely local business and the road's traffic is more than 40 per cent iron ore and more than one-third soft coal. Like Duluth, Missabe & Iron Range at the other end of the lakes, it is almost exclusively a plant facility of its owner, United States Steel. Most of its freight is moved by 47 modern Texas type locomotives, of which the new class illustrated are the latest. These were built early this year by Baldwin.

Lehigh & Hudson River, whose passenger trains you never will ride because there aren't any, had no existing Mountain-type locos to reorder when it wanted some new power this spring. Instead it had Baldwin duplicate, except for some slight increases in weight due to lack of alloys, the Boston & Maine class R-1d built in 1935. Thus L&HR complied with the WPB rule against new locomotive engineering. L&HR traffic is nearly half coal.

Principal Dimensions:

	L&HR	BL&E H-1g
Road classification	10-12	638-647
Road numbers	67,000	96,700
Tractive force, lbs.	28 x 31	31 x 32
Cylinder dia. and stroke, in.	73	64
Driver diameter, in.	268,500	371,359
Weight on drivers, lbs.	83,000	38,643
Weight on pilot truck, lbs.	68,000	113,596
Weight on trailer truck, lbs.	419,500	523,600
Total weight of engine, lbs.	324,250	304,000
Tender weight, 2/3 loaded, lbs.	240	250
Steam pressure, lbs. per sq. in.	79	106.5
Grate area, sq. ft.	4511	5912
Evap. heating surface, sq. ft.	23,000	23,000
Tender cap.: Gals. of water	21	25
Tons of coal		

Railways of the United States spend millions of dollars each year keeping their lines operating in even the fiercest winter weather, while their competitors on the highways wait for the government to clear the roads. In this article, TRAINS tells the story of railroad snow-fighting on one midwestern railroad during the particularly bitter winter of 1935-36, and of how the railroad kept trains running when all other means of transportation were tied up.

The Winter of '36

Division superintendent relates how the Milwaukee Road fought heavy snows in subzero cold

BY JOSEPH C. O'HEARN

BATTLING blizzards, subzero temperatures and high winds, hundreds of men fought to keep open the hard-hit eastern end of the Chicago, Milwaukee, St. Paul & Pacific Railroad (Milwaukee Road) in an epic war against nature nine years ago. From January 18 to February 20, 1936, the railroad spent more than a million dollars for snow removal. Only four times during the 34-day period did the thermometer rise above zero, and, when this occurred, blizzards or storms of near-blizzard intensity accompanied the "milder" weather. Details of how freight and passenger business were handled during the period have not been published before, but one day recently J. H. Valentine, superintendent of the Milwaukee Division, got to reminiscing.

Valentine was not only in the middle of it, he was above, below, in front of and behind the battle against Old Man Winter at its worst. He spent hours out on the line and more hours in his office in the Milwaukee depot, constantly using the phone to keep in touch with distant points where trouble hit hard. Ordinarily, his division employed about 140 maintenance men. During the period from mid-January to near the end of February, that number was increased until, at the peak, more than 900 men were at work clearing the lines. Operating costs jumped 112 per cent while business rose two per cent, yet, during the entire period, the longest time any passenger was delayed out on the line was about three hours.

During early January, considerable snow fell over the area composing the Milwaukee Division, although the fall was not above the average of other years. Wedge plows were used and schedules were maintained with comparative smoothness, but on January 17 real trouble entered the picture. A blizzard, sweeping in from Lake Michigan and riding on a northeast wind that had the anemometer cups spinning up to a 35-miles-per-hour velocity reading, piled up 13.6 inches of snow in nine hours. That was just 1.2 inches more snow than normally falls in the area during the entire month of January. Drifts blocked the lines as fast as they were opened. Wedge plows of wood and

West of Ripon, on the Milwaukee Road Oshkosh line, a wedge plow blasts into a four-foot snowdrift. Snow is thrown 25 feet into the air when the plow crashes the drift at 20 miles per hour.
J. Valentine collection.

J. Valentine collection.

Sunday, February 16, 1936, and the thermometer reads 16 below. The engine is waiting for the track to be cleared so it can pull out a cut of freight cars from a stalled freight ahead.

metal construction, attached to a car weighted down with stones, were in constant use. It soon became apparent that more men were needed. By midnight, 100 men had reported and had been assigned to critical areas. Toward midmorning on January 18 the storm abated, and by noon all lines were open.

Three normal days followed. Then, on the morning of January 21, winter returned to the attack. At 8 a. m. the thermometer stood at 1 degree below zero. Instead of rising, as is customary during the morning hours, it dropped, or rather plunged, only stopping at 11:30 a. m. when the mercury hit 26 below zero! High winds lifted surface snow and piled it in drifts across tracks. Valentine, knowing that the equipment on hand was not sufficient to cope with the situation, sent out calls for two rotary plows which were then in Mitchell and Aberdeen, S. D.

The first rotary arrived in Portage, Wis., on January 26. But between January 21 and 26, many things had happened. Drifting snow, coupled with temperatures that ranged between 18 and 26 degrees below zero, had played havoc with the lines, men and equipment. The equipment, equal to conditions encountered in an entire normal winter, had been placed under terrific hammering through constant use. Heavy toll was taken as, day after day, the wedge plows were driven into increasingly deep drifts. A support stay would snap and half the wedge would drop on the track, useless until repairs could be made. Or a side flange would buckle, piling up snow on the incline of the wedge and, before the locomotive pushing the plow and the weighted cars could be stopped, the plow would topple sideways, jamming up the line until it could be righted. Men and still more men were called, until over 450 were at work, digging down through wind-hardened and frozen drifts.

Receiving word that the rotary had arrived at Portage, Valentine gathered a crew, boarded a caboose behind a K-1 Prairie, and set out to get it. The men who had brought the rotary from Mitchell turned it over to Valentine and his crew with plenty of instructions, especially concerning clearances, and the K-1 was coupled on behind the rotary for the return trip to Milwaukee. Things were going very nicely at four miles per hour, the absolute maximum speed at which the plow could be operated, until Fox Lake, Wis., was reached. The rotary

Above, left and right: Solidly packed drifts cause plow to snap stay and twist to one side. Left: Snow-cuts through drifts 9 to 17 feet high were a continuous challenge between Chicago and Milwaukee. At bottom is shown one of the rotary plows sent to Milwaukee from South Dakota, pictured on March 3, 1936, at the Milwaukee Road shops, where nine feet of snow was piled only ten days earlier.

blades had been merrily whipping the snow drifts into high arcing flumes, but suddenly the fluming stopped, although the blades kept whirring. The plow was backed up, then sent slowly into the drift, which was somewhat larger than those previously encountered. Valentine was standing atop the drift, watching the proceedings. As the blades met the deep snow, he noticed that the lower part of the frame encasing the blades nosed upward instead of biting at the base of the drift. Another K-1 was called out from Horicon, and when it arrived it was coupled behind the first K-1. Both engines grunted forward in unison. The rotary blades bit into the drift and the plow held down to the drift base. The extra power of the second K-1 was all that was needed, and Milwaukee was reached without further trouble.

While recounting the experience, Valentine gave a bit of interesting information concerning rotary snowplows. The first one to arrive was an old type in which the operator sat up in front in a cab where he could get a good view of conditions ahead. The cab was part of a wood structure built completely over an old locomotive from which all drive wheels and cylinders had been removed. A fireman, back in what was originally the cab of the locomotive, kept up steam in the boiler to supply power to the mechanism driving the rotary blades. He also operated controls in accordance with signals received from the operator via the transmission cord and the standard communications cab whistle. The entire rotary machine was, of course, pushed by a locomotive, the engineer of which also received signals for stopping, starting and reversing.

Bottom, courtesy Milwaukee Road; others, J. Valentine collection.

The second plow, arriving from Aberdeen a week after the first made its appearance, was a new type. Its operator had a complete set of controls in the cab for governing the rotary blades. He also had control of the air on the locomotive pushing the plow, but he still sent signals to the engineer as to direction and speed requirements.

Fortunately, conditions were not as bad when the new plow arrived in Portage, and the crew which met it had sufficient opportunity between there and Milwaukee to learn the basic features of its operation. From Milwaukee, the plow was sent to various points to clear out stubborn drifts. On January 28 the temperature began a slow rise, continuing upward until January 30, when 6 below was registered as a minimum. The warmer weather ushered in a new series of snow storms, some light, some fairly heavy, but all adding to the task of maintaining schedules and services. No sooner would one area be opened than another would need attention. Valentine rushed men to the troublesome districts—50 men here, 75 there.

Trains were stalled after plowing into deep drifts, and when this occurred to long freight trains, a special procedure was used to break them out. A freight locomotive and a work train loaded with shovelers were sent out behind a plow, the plow taking the opposing main at the crossover nearest the rear of the stalled train. The locomotive then continued down the line and upon arrival at the scene would pull out a string of about 20 cars. These would be taken back to the crossover and set out on the opposing main, and the helper again would proceed to the remainder of the stalled freight, attempting to pull it free. If this was impossible, another cut would be taken over on the opposing main. Meanwhile, a gang of men, sometimes numbering more than 100, would be hard at work shoveling snow from the wheels of that part of the train remaining in the drift. In most cases only two cuts were necessary, although an exception occurred one night when four cuts and two helper engines were needed.

Upon freeing the stalled locomotive so that it could gain traction, the helper would pull the remaining cut from the opposing main back to the original main, and the train would be made up again. The plow then would come onto the original main ahead of the train, and clear out the drift. With this done, the delayed freight would proceed on its way. Naturally, all opposing traffic was delayed, but fortunately such tie-ups occurred mostly at night, when few passenger trains were in operation.

On Saturday, February 8, the sky was darkened at about 4 p.m. by low, scudding black clouds driven in from over Lake Michigan by a strong east wind. A half hour later, day turned to night, and from the clouds fell a blinding, driving snow. The storm, increasing in tempo, added five inches of snow in three hours to the two-foot blanket that had already fallen. The second rotary plow had arrived from Mitchell only that morning, and Valentine had both plows out on the division, working with a gang of 600 men to keep the lines open. It was an all-night process, and on Sunday morning conditions seemed fairly well under control, although a heavy snow was still falling.

On that morning, No. 14 started out from Milwaukee for Chicago with a wedge plow and a locomotive running ahead. No. 14 was followed by No. 58 in about five minutes. At Sturtevant, 23 miles out of Milwaukee, the

Optional routes

Trains each month prints a brief listing and survey of available routes between larger cities.

Buffalo and New York City:

New York Central—Fastest and most frequent service. Local and through sleepers on several trains. Several day trains, led by *Empire State Express*, which has all seats reserved and an observation-solarium available to coach passengers. Standard fare.

Lehigh Valley—Sleepers and coaches on night trains; day *Black Diamond* has semi-streamlined coaches and conventional parlor-solarium. Good meals, fine scenery. Differential fare generally lower than standard.

Delaware, Lackawanna & Western—Several sleepers; eastbound, this road has widest choice of departure hours for local sleepers. Most coaches air-conditioned. Day train has coach-lounge and parlor-solarium. Good meals, scenery. Fastest of differential routes.

Erie—No sleeper into Buffalo, but car available Hornell-New York and return. Day and night train, also another weekday train. Day train has a through coach. Least crowded of coach routes. Fare differential.

Pennsylvania—Indirect, via Philadelphia. Sleepers and parlor west of there. Fare about as standard.

Hudson River Day Line—In summer, NYC tickets may be exchanged for steamer tickets, Albany to New York and return.

plow unit stopped for water, which gave No. 58 a red board at a signal a mile north of Sturtevant. The plow and No. 14 went on their way, but No. 58, after starting up, became stalled in a rapidly filling drift which the plow had cleared only a few minutes before. The dispatcher at Milwaukee, getting no clearance for No. 58 from Sturtevant, realized what had happened and issued orders to Tower 68, 17 miles out of Milwaukee, to hold No. 56, which had already left for Chicago. The information was also given to Valentine, who immediately ordered a rotary and a crew to prepare for action, joining the rescue party himself.

The *Pioneer Limited,* No. 4, was about to leave Milwaukee, so Valentine directed her to follow the rotary. At Lake, 6½ miles out of Milwaukee, both the rotary and the *Pioneer Limited* crossed over to the opposing main. Arriving at Tower 68, the rotary pulled ahead to the point where No. 58 was stalled, and the *Pioneer* stopped just opposite No. 56. The tops of both trains were just level with the tops of the snow banks on each side of the tracks. Between the trains was a wall of snow about six feet high, and through this passageways were cut. Passengers were then transferred from No. 56 to the *Pioneer.*

The baggage cars on both trains stood directly in line with each other. Orders had been given, before leaving Milwaukee, that a coffin containing a body be transferred from No. 56 to the *Pioneer.* Since the baggage cars were directly opposite each other, the transfer was accomplished by merely lifting the coffin to the top of the wall of snow between the trains, sliding it across and gently lowering it through the baggage-car door on the *Pioneer.* How, with snow flying thick and identification of baggage cars impossible to make, the two baggage cars came to be lined up so perfectly still puzzles Valentine.

The *Pioneer,* with all passengers from No. 56 aboard, proceeded down the opposing main behind the rotary. Upon arrival at the signal where No. 58 was stalled, passengers from the latter train also were transferred to the *Pioneer.* The *Pioneer* then proceeded to a crossover near Sturtevant and went on to Chicago on the right-hand main, carrying a total of 350 passengers. Late that same afternoon, both No. 56 and No. 58 were freed, all traffic in the meantime having been run around them. The delay for those on Nos. 56 and 58 was about 3¼ hours, the longest wait out on the line for any passengers on the Milwaukee Division during the entire period of the 1936 battle with Old Man Winter.

The following is a report received in the division superintendent's office on February 10:

J. H. V.: I have checked on the number of snowdrifts on my division. Between Atwater and Berlin, 23; between Ripon and Oshkosh, 18; between Horicon and Portage, 10; between Brandon and Markesan, 7; between Rush Lake and Winneconne, 10; total, 68 drifts 9 to 17 feet high and from 100 to 3000 feet long. Most of these continue to fill with snow driven by winds. We have used plows and flangers, and have flanged

R. W. Campbell, collectio

Nearing Rugby Junction on February 5, 1936 (temperature, 25 below), is Milwaukee Road engine No. 8254 and snow work-train. The front car is loaded with stone. Before hitting a drift the caboose and supply car are cut off.

many of them by hand. We may have one month of snow conditions that will continue to tie up the road. Pickett, Berlin and Oshkosh wire reports of five-foot drifts in cuts today and it is still snowing. J. H. Johns, Road Master.

The Milwaukee Division has five subdivisions, totaling 637 miles of line, with a road master in charge of each subdivision. J. H. Johns' division comprised 130 miles of line, and his report was, of course, only for the area he outlined.

On February 12, when the thermometer hiked to 14 degrees above zero, Valentine considered sending the rotary plows back home, but a hunch told him to wait. It was a good hunch, too, for that very night a storm, bearing in from the northeast, hit the division. This one started out in earnest and really topped all its predecessors in intensity. The temperature fell from 6 above to 6 below overnight, and winds

R. W. Campbell collection.

Engine No. 6332, a 4-6-2, leads a doubleheaded passenger train into the Milwaukee station after running through a blizzard. Men at far right are clearing the passenger-car turntable. Below: At the eastward siding near Sturtevant, Wis., this switch stand was buried in snow twice its own height.

J. Valentine collection.

howled to new velocity records. The rotary plows were shagged out and run practically doubleheaded, since one followed behind the other with only a few minutes elapsing between their departure times. More men were hired, until over 900 were at work.

On February 14 there was 38 inches of snow on the level and more was in the making. The storm continued through February 16 with a steadily dropping thermometer until, on February 17, 26 below was recorded, with a wind velocity of 53 miles per hour. Dry, stinging, powdery snow blasted at workers out on the line. By early morning of February 18, the official snowfall recorded for the entire month was 23.8 inches, more than twice the normal fall, and 15 inches of it had fallen between February 12 and 18.

About midnight of that February 18, Valentine left his office, exhausted and hoping for a few hours' rest. At 3:30 a.m., however, he was roused by a telephone call which told him that 17 freight trains were stalled at various places in his area. One stalled freight is plenty of cause for worry, but 17—well, just picture the procedure of getting one freight train out of a drift! He hurried to his office, where he was given a report covering the locations of the stalled trains. Three were between Roundout and Janesville, three between Chicago and Milwaukee, six between Kittredge and Sturtevant and five were deep in the snow on the roads from Oshkosh and Portage to Milwaukee.

For 14 hours straight, Valentine dogged, cajoled, and bullied every man on the division. He was out working with them. At every opportunity, he broke in upon the dispatcher's line and gave orders that would relieve tight situations. He rode the rotary plows down the line between walls of snow that were often above the tops of the engines. By 5 p.m. on February 20, all trains were free and all lines once more were open. The wind died, and the temperature began a slow, steady, upward climb.

Why Buy New Freight Cars?

Per Diem Agreement requires that each railroad have enough cars for its own local service

SINCE all railroad freight cars in the country are freely interchanged from road to road and used as one gigantic car pool, how does any one railroad determine when and why it should order new cars? Why not just use the other fellow's cars?

The New Haven, explaining a new purchase of 2000 steel box cars, says, "There are a number of reasons, though all of them are overshadowed [at present] by this one urgent, fundamental fact: We need the cars to handle present and prospective war traffic. In normal times the considerations all may be boiled down under two headings: Efficient service, and Economics.

"The system by which freight cars may travel from one end of the continent to another is the result of an agreement between all the railroads, known as the Car Service and Per Diem Agreement. Signed by the individual roads, this is a binding contract, and sets forth the rules under which the gigantic pool of freight cars is operated. Involved, of course, is careful accounting to keep track of the travels of the cars, so that the proper charges may be assessed and collected.

"One of the fundamental rules is that each railroad shall have enough cars of its own to handle its local traffic. Another, equally important, is that 'foreign' cars shall be loaded to or in the direction of the home road. Thus, for example, if we have at New Haven a shipment for Chicago, and we have an empty Illinois Central car and a New Haven car available for loading, we should use the Illinois Central car, thus starting it toward home. And inasmuch as for every day that Illinois Central car stays on our railroad, we owe that railroad $1, the quicker we get rid of it the better.

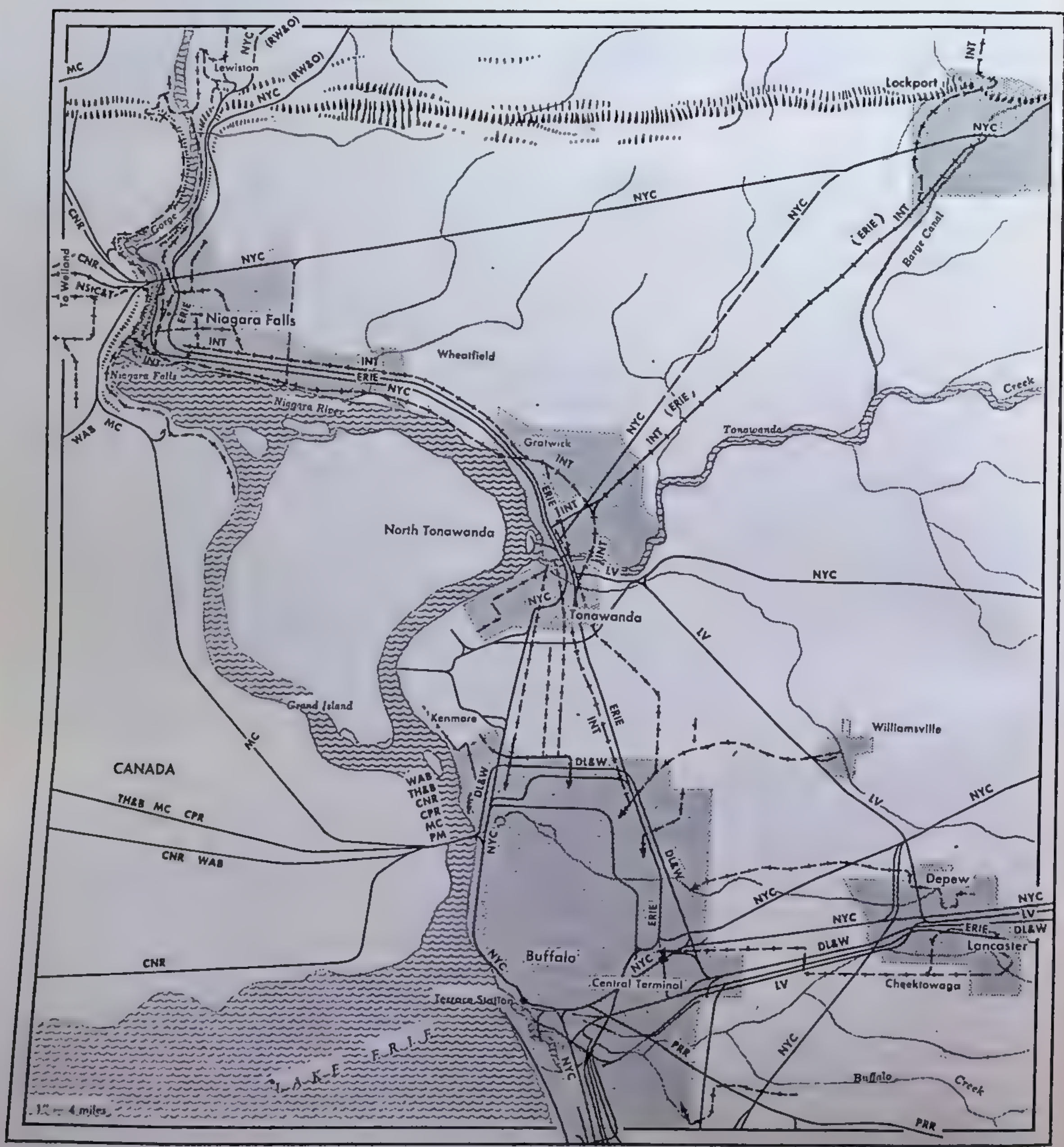
"So, number one consideration for the railroad in determining whether or not it needs new freight cars is: Do we own enough cars to give our patrons good service?

"Beyond that, economic considerations enter the picture. If a railroad owns too many cars, some of them will be standing idle on side tracks. And idle cars don't earn their salt. So the general idea is to maintain a balance so that there are enough cars of the right kind to handle all the business, but not so many that there won't be work for them to do.

"Then, of course, there is Per Diem. Per Diem is the charge assessed by the railroad owning a particular freight car against the railroad using that car, for the number of days it is so used. Right now that rate is $1 per day. Obviously, when a railroad lets its own freight car ownership drop down too low, it more and more is compelled to use other railroads' cars, and is thus penalized for its failure to have sufficient cars of its own by the mounting Per Diem costs.

"Per Diem thus, to an extent, acts as a sort of persuader just in case any railroad should ignore its obligation to keep up its proper proportion of freight car ownership. Even if a railroad did ignore this obligation and decided that it was cheaper to pay the $1 a day and use the other fellows' cars than to invest its own money in freight car equipment, there would be the ever-present possibility that the railroads with large car ownerships might insist on increasing the Per Diem rate, in which case the road without cars would be left holding the bag.

"Prior to 1902 the rental charges for using other railroads' cars were on a mileage basis, being ¾ cents per mile for refrigerator cars, and 6 mills per mile for all others. Starting July 1, 1902, this was changed to 20 cents per car per day, plus a penalty of 80 cents per car per day for all cars held on line for more than 30 days. In 1906 the rates were changed to 25 cents and 75 cents penalty, in 1907 to 50 cents per car per day. Since then the rates varied from 20 cents to 75 cents until March 1, 1920, when the rate was established at 90 cents, and on November 1 the same year the present rate of $1 became effective."



George Zaichek.

Since Indian times the strategic Buffalo-Niagara Falls region has been a transport crossroads. Here canoe routes and land trails crossed; at Tonawanda was the western terminus of the Erie Canal; at Buffalo early railroads transshipped to lake vessels. Here today a score of railroads converge from east, west and south. The fame of the gorge and falls of the Niagara River has made this the best-known mecca for travelers in all the United States. But Niagara's falls are most important as a source of electric power, sent in all directions to operate railroads and factories and to light the homes of over a million citizens. The river flows northward toward Lake Ontario. To the west is Canada. The main line of the New York Central enters Buffalo via Depew, from the east, and turns south to skirt Lake Erie for more than 200 miles. The trip described in the following pages leaves this main line between Central Terminal and Terrace Station near the bottom of the map.

Niagara Falls Line

BY WILLIAM C. KESSEL

Take a 27-mile ride from Buffalo to Niagara Falls on one of the pioneer railroads of the world

"THIS is certainly one of the finest short rides in the country, from any railfan's point of view."

This endorsement of the 27-mile Niagara Falls Branch of the New York Central Railroad, from Buffalo to Niagara Falls, carries some weight, for it was made by no less experienced a fan than Rogers E. M. Whitaker of New York City, who has covered more than a quarter of a million miles in seven years of fan-tripping.

Let's see what there is to this line which could inspire such a statement. First of all, let me tell you of one peculiarity: Trains (in a strictly defined sense), are never run over the line by the New York Central! The standard code defines a train as being a movement *carrying markers,* and neither freight nor passenger trains between Buffalo and Niagara Falls carry markers; they must therefore be classed as yard movements. To be sure, Michigan Central trains between Buffalo and Black Rock, and Lehigh Valley trains between Tonawanda Junction and Suspension Bridge, may carry markers, but these are not required; a flag or a lantern will suffice. The New York Central once tried to dispense with markers on its main line, too—but after a few weeks of protest by enginemen, the traditional tail lights reappeared, burning as brightly as they have for many a decade of American railroading.

The entire Falls line is double-tracked, and the rail and ballast are of mainline quality. However, speed is restricted to 60 miles per hour despite block signals for the whole length; the route is a very busy one, and the longest open stretch is only about nine miles long. Furthermore, highway grade crossings are numerous.

Let's get a small railfan party together, and survey the property. We can go out on Train 211, due to leave Central Terminal at 9:15 a. m. To be representative, the party must include several kinds of fans. We'll need a historian, who believes that railroading died in 1860, and a statistician to count the ties; a motive-power man who never looks behind the tender, and a coach fan who never looks at a train until the engine has passed. We'd better include a few people whose interests are less specialized, too.

We could board the train downtown, at the old Terrace Station. However, we may as well

Suspension Bridge Station is the terminus for most Buffalo-Niagara Falls trains. The town is named for a historic bridge spanning the gorge.

New York Central.

William C. Kessel.

A New York Central J-3 at Niagara Falls. Engines of this class made their break-in runs on the Falls line in 1939.

be present when the run starts; that means a trip out to Central Terminal. It will take us about as long to get there (by bus) as it will to get from Central Terminal to Niagara Falls, since it is nearly three miles east of downtown.

Stopping at the ticket window, some of the fans put down their 63 cents—surely a small payment for the northbound half of a fan trip! A few need not pay at all; tickets reading through Buffalo for a reasonable distance (such as Cleveland to Rochester or the equivalent) will be honored for a free side-trip to the Falls and back. All the roads participate in this plan; some of them (such as the Erie) utilize buses, but the NYC, the LV, and the DLW stick to the rails. At one time, tickets were deposited with the ticket office and a side-trip ticket was issued; but this method was discontinued a few years ago, and the through coupon suffices.

As the party heads for the fine concourse, the historian is lecturing on the history of the railroad connecting Buffalo and Niagara Falls. And well may he lecture, for this is one of the real pioneer railroads of the world. The scenic wonder which is Niagara Falls was its inspiration, of course.

Descending to track level, the party is led by the motive-power man, who gasps as he realizes that the smoky end is held down by a J-1 Hudson. "What a waste of good engines!" he says. "Couldn't lighter power handle the run?"

Of course it could; all but one or two of the 13 daily trains (six northbound, seven southbound, except Sunday, when the count is six and six) could be handled with a doodlebug, most days. Pacifics handle the trains in peak periods such as Christmas and Easter, when the Hudsons are needed for extra sections on the main. But the Hudsons are simply mainline engines sent up to the Falls while waiting for mainline trains. Too, whenever an engine is shopped at Buffalo, it is sent to the Falls for a few trips to see how the bearings will run. For that reason, *Century* streamlined Hudsons are not uncommon on the line. The same thing applies to Pullman cars; they are deadheaded over the Falls line until the stiffness wears off. The use of the Class J's, then, isn't really so wasteful as it may appear.

Turning toward the rear, the group sees that the train consists of two coaches and a baggage car, followed by a sleeper which was switched from Train 63 from New York. The Falls train is not turned at Buffalo; the baggage car and two coaches which furnish the usual consist (except on a few of the runs) are merely pulled back and forth, and the sleeper is put on the rear to save switching.

We decide to ride the front car so as to hear the music more plainly. While debating whether to board the train immediately, we hear a shout from the coach fan, who has already entered the car. "Natural-color wood paneling, wooden seat-arms, old green upholstery, wooden floor—this coach makes the whole trip worth while!" he yells. Even the engine fan has looked back by now, and even he notices the steel sheathing at the tops of the windows, suggesting the onetime presence of arch windows. Yes, these are among the earliest steel cars on the system. They came up from the River Division a few years ago, at the start of this present boom; and a few of them can still be seen on the Falls trains with a fair degree of regularity. Some have been "modernized" with painted interiors, but most of them retain the cherry-wood interior trim, and are railfan delights. (Don't make a special trip to ride one, though—you may miss. Better look for them on the West Shore instead.)

The other coach is an ordinary one; but at least it has six-wheel trucks. The baggage car today is conventional enough, but any kind of equipment may be seen—often a red LV car.

We board the train after one last look at the Pennsy wide-window combine across the tracks. While waiting for schedule time, the historian helps the coach fan catalogue all the old-time details. Then the statistician wants to know all about the sources of revenue. He speculates about the tourist traffic, but is soon set right.

A local fan who happens to be aboard says, "Forget about that cataract; everybody at the Falls does. The only time they see the water is when they have company from out of town. Niagara Falls is a big industrial city. Cheap hydroelectric power attracted lots of chemical plants which use large quantities of electricity; the hydro power isn't relatively so important on this side of the border any more, with improved steam processes available, but the plants are still there. All those plants have to be served with railroad freight facilities. Sure, Niagara Falls is a great tourist attraction, and the railroad prospers in normal times because of it. But it is the plants which keep the railroad alive."

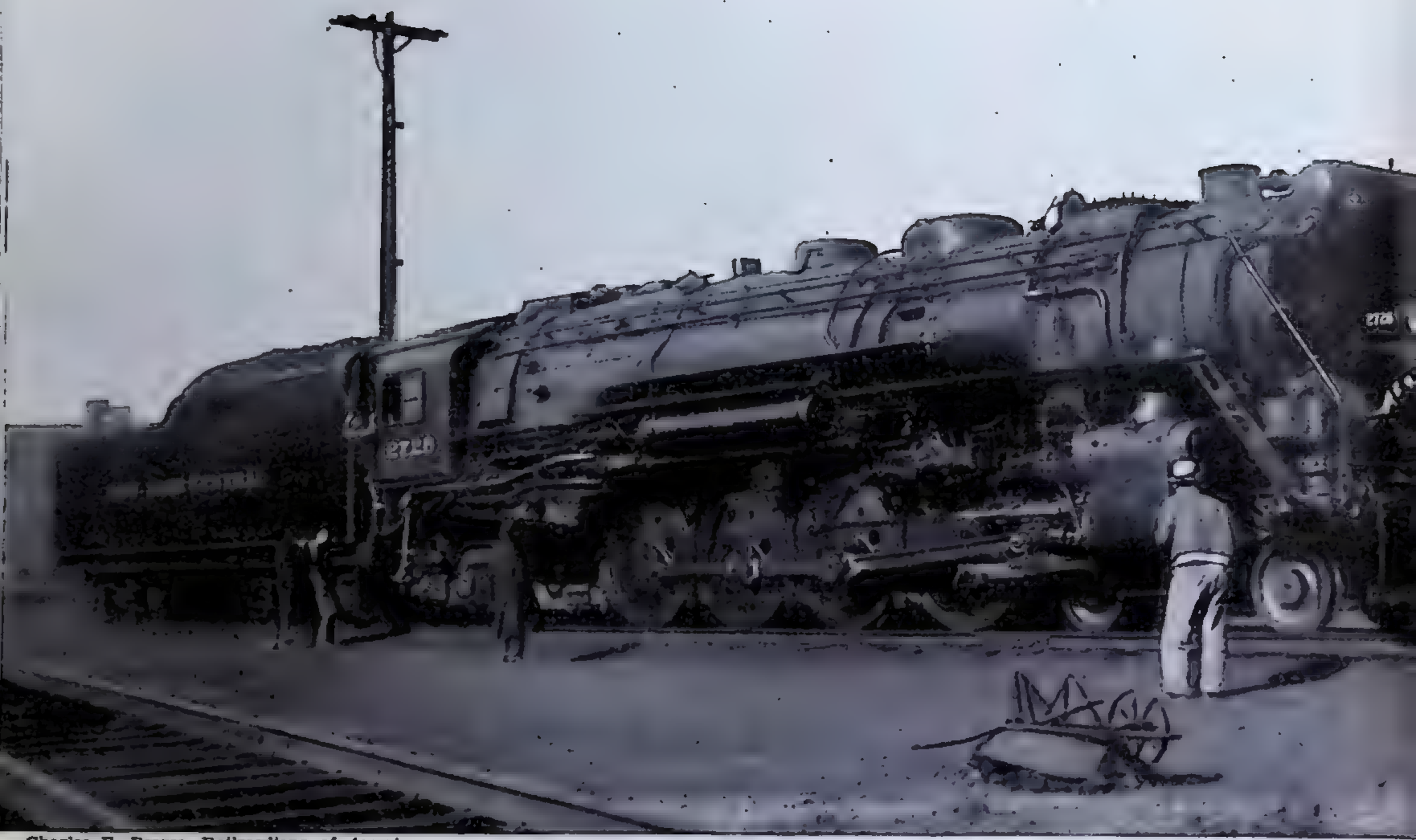
"Then it's freight that pays the bills?"

"Sure. Freight trains aren't allowed to go through the Terrace, by agreement with the city when the road got its right of way. But everywhere else on the line, freight is the important thing. Industrial spurs off the Falls line are as numerous as driveways off a city street. And plenty of through business runs between Buffalo and Niagara Falls; it comes in from the belt line. Probably there isn't as much, relatively, as there used to be, though; solid trains from the Falls now go east over Falls Road, through Lockport to Rochester. Power? L-2's, almost entirely.

"But the Lehigh Valley runs between North Tonawanda and Suspension Bridge, you know. Sometimes you can watch that track around La Salle, and you'd swear that it was LV track and that it was the Central that has trackage rights. It's not local business; there isn't much of that for the Lehigh. But plenty of through freight moves over the Canadian National and the Lehigh Valley. The CNR gives solid trains to the Lehigh at the yards north of the Bridge, and the LV rolls 'em through to the east, without ever touching Buffalo; the Niagara Branch cuts off to a point near Depew, 11 miles east of Buffalo station. They used to use their big Class T engines—4-8-4 type—and sometimes you'd see the Class S Mountains which were converted from three-

New York Cent

Buffalo's Central Terminal, three miles from the present downtown business district, serves all NYC as well as Pennsylvania, TH&B, and CPR trains. The building is immense and is crowned by a tower of offices. This station was built in 1929. The train above is heading out toward the west, same direction taken by Falls trains.



Charles E. Pearce, Railroadians of America.

Best-known freight locomotives on the NYC are the Mohawks. This is a company name for the Mountain type. These L-2a engines have 73,280 pounds tractive force (with booster). They are used on long, level runs.

cylinder jobs. But these days there are plenty of Lehigh Mikes, sometimes doubleheaded. The LV passenger run uses K Pacifics.

"Lots of highways cross at grade in the open stretch through Wheatfield. Boy, what a concert you can get there in the evening hours! All kinds of LV whistles, the Central, the Pere Marquette and the Erie paralleling. All that's missing is the old high-speed air horns."

"But isn't there a lot of tourist business anyway?"

"Oh, yes—200 children daily from Detroit get off the D&C boat in Buffalo right after graduation every June, and all head for that Terrace station. The hotel will send a messenger over there and buy 150 round trips for a convention. All that adds up. Nothing like the peacetime days when excursions from New York and Boston would converge on the Falls each holiday with special trains, of course. Hmmm. Reminds me of the Erie special that headed for the old station, which is now a gas station, and scared the daylights out of everyone buying gas. Yes, the Falls is still the Falls. I suppose the line should be standing on its head each weekend, with gas rationing and all. There's been some increase, but not what you might think. Never again will old Suspension Bridge station see a train every five minutes from some direction or other. Maybe Niagara Falls has taken too much kidding; I don't know."

"How about commuter business?"

"Commuter service in Buffalo carries a couple of carloads. Terrace is a natural site for a downtown station. But here's the catch: In the morning everything is fine. But at night—well the train is the connection for lots of others. The *Empire State* runs pretty well on time, and the Falls needn't wait for 9 if she's too bad. But 52—52 has to do everything—mainline, Old Road, Big Four, P&LE. And 257 on the Falls generally has to wait for 52. A commuter never knows quite when he'll get home.

"Commuting in the other direction, things aren't good. The morning train is made up from 29, the *Niagara*. If 29 is too late, a section will be made up on time. In the evening, 236 loses a lot of time everywhere. Four express cars have to be hung on the rear at North Tonawanda, for instance. And that takes time.

"Shoppers, though, patronize the train. Lots of people will put up with the rather sparse schedule instead of standing on the buses.

Round-trip fare's higher—but one-way is cheaper than the bus. And children come in on it all the time. Theatre-goers can't use the train — last one from Buffalo is at 9:10 p. m. out of the Terrace. Hockey specials used to run in the winter; the Terrace is only a couple of blocks from the arena (Municipal Auditorium), and they were well patronized. But now O. D. T. says, 'Naughty-naughty.'

"More of a nuisance than anything else is the baggage - checking racket. For 63 cents, a salesman can move 150 pounds of high - class freight — and move himself a year later if he wishes. The buses won't do that, but the railroad must. That is one reason the railroads like to wreck shortline passenger service; they aren't flexible enough to get the gravy, but they are called upon for all the grief.

"Guess the sleepers furnish as much revenue as anything else."

"What? Well, the Falls won't have many this year, will it? Adirondacks is down to a handful."

"I told you to forget about that cataract. The sleepers run all winter, for those plants. Three of them run regularly from Niagara Falls to New York and return. The others are interesting. One goes to the Falls from New York and stays there all day, available to its occupants as a base for their sightseeing operations. Then it returns to Buffalo and goes to Chicago over the MC. The other comes from Chicago to Welland, and there it is put on the rear of a combine and a Mike. It goes to Niagara Falls station via the true original main line of the MC, passing Falls View. It is the only passenger movement now passing this way; and even it doesn't stop like MC trains used to before they were rerouted via Fort Erie. In the evening it goes to Buffalo and then to New York, being available all day like the other one."

A long "*Boooooard!*" and the train moves out of the terminal. Express cars of all roads are seen to the right, at "Lindy." Picking up a little speed, the train leaves the slip switches and heads out on the multiple iron. The native calls attention to the PRR connection; trains have to back in and out of the terminal to use it. After a few moments the train slows and curves slightly to the right. A sharp curve by two of the tracks to the left is identified as the New York Central main line. The train drifts through weedy ground typical of many a railroad yard. Exchange Street station, former home of the Central, is passed. One Pennsy commuter train still leaves from there, but no building is there to identify it. To the left is seen the train shed of the Lehigh Valley. A red, white, and black streamer is projecting from it—the *Black Diamond.*

The sound of brakes is heard as the train drops into a rock-lined cut. The face of this rock had to be chipped a few years ago to permit passage of the *Cascade* and *Imperial* series of Pullmans. The double track barely has room to squeeze through, and the draft gear and spring plates protest the curves. An upward grade, and the train reappears on the surface. A number of people board the train at Terrace station—more than were on at the Terminal, by far. The Terrace is a handy downtown station. The building itself is far from imposing; it is frame, and very old—1886 is the date usually given for its construction, though that is not official. One can't see the old coal stove from the train, but it is there. The Terrace does considerable business, due to its location near the hotels and the off-line passenger offices.

There has long been talk of taking the tracks out of the present alignment and putting them a short distance west, in the abandoned canal bed. It is possible that this would have been done by now except for the war. Bickering among civic groups delayed the project for years; some people wanted a tunnel instead of a cut, regardless of the lungs of engine crews.

Now we are moving again. The engine can be seen from the second car, so sharp is the curve to the left. We cross a little street and then a hump over the old canal bed; we go around another curve, this time to the right. We wonder how the Michigan Central puts 20-car passenger trains through here. DL&W freight yards for a segment of the waterfront are on our left. And we see the Niagara River, which we will parallel all the way but which will be in sight for only part of the distance.

We pick up speed, and soon meet the *North Shore Limited* from Chicago to New York, a bit tardy. Too bad we can't meet the TH&B train, with the well-maintained TH&B Pacific on the smoky end, or perhaps a maroon Canadian Pacific locomotive.

We brake again, for the sharp curve and the bridge near the waterfront. We pick up speed, and for the first time hear the whistle through the open windows; it is particularly noticeable here because of the reverberation from the brick walls of buildings. We didn't stop at the tiny Ferry Street station, but are slowing for Black Rock. We stop at the NYC station; MC trains use the Grand Trunk station (which no longer serves GT trains) a few hundred feet to the west. Our attention is called to the curve to the left which must be used by all MC trains. Imagine starting a 17-car *Wolverine* on that! It's done, nightly. The International Bridge at the far tangent of that curve is a major port of entry from Canada.

We start up and soon reach about 60 miles per hour, flashing past many industrial sidings. We are told that almost any kind of power can be seen in those Black Rock yards of the Grand Trunk: NYC, TH&B, CP, CN, GT, Erie, Wabash, DL&W, PRR. A couple of miles, and we slow down for a curve to the right and climb to the tangent in front of Tonawanda station. Leaving there, we curve again to the left, and see the Erie's single iron coming up on our right. This will parallel us to the Falls. As we prepare to cross the Barge Canal, we see a track ready to join us; it is the NYC Peanut, used for about a mile to the east by the Lehigh Valley. Thus does the Lehigh connect with the Falls line and with its connection to the Canadian National. A long freight is waiting for us on that line. We cross the bridge and slide into North Tonawanda.

"Why all the curves of the last mile or so?"

The native explains: "See how far away from the tracks the station is here? Well, the line ran in the streets of Tonawanda and North Tonawanda to here till about 25 years ago. It passed the station. You can estimate the route pretty well from sight. All the fill is thus comparatively new. Now, look to the right; see that single track leaving us here? That used to go to Lockport, and nearly as many trains ran to Lockport as ran then to the Falls. It is a stub-end track now."

We are at North Tonawanda for some time, loading express and mail and taking water. The native is quite happy about the whole thing. Says he, "Now we'll see a little action. The schedule is easy, and the only time the trains roll is when they are late."

We leave at last, and go through some yards. We bang across an Erie track at right angles. At Gratwick we pass a station at about 50, and see the river once more. No autos are to be seen on the highway—a contrast to two years ago. One bus is spotted, bouncing along at 35. We climb to the legal 60. We take the banked gentle curves easily and see a Pere Marquette Mike on our right. Signs of the electric line are still visible beyond that Erie track.

Three hisses from the vestibule tell us that there are passengers for La Salle. We don't pause for long, and again reach about 60 through the back yards of La Salle. We don't stop at Echota. We smell something now, and we know our native acquaintance was right when he spoke of chemical plants.

Wires! It is the Niagara Junction, a switching road owned by the power company, and we are passing one of its two NYC interchanges. We see a motor, and are lucky enough to see the yellow line car. Whistling, we pass through some yards—the Erie has just left us—and are told that the city of Niagara Falls enjoys the benefits of reciprocal switching agreements whereby a shipper can choose his route out of the Falls regardless of who owns the siding into his plant.

Four sleepers are at our right, just before we see the station. We stop, and the four become five as a Diesel switcher takes the Pullman off our tail. A long train unloading mail can tie up the main streets of the Falls very nicely here. The station is on a curve.

We spend several minutes at Niagara Falls. All but a handful of deadheads and ourselves have left the train. We pass two houses so close to the tracks that anyone on the porch could virtually touch the trains. We pass the old Gorge Route barns, and find ourselves on the brink of the Niagara. Two bridges can be seen ahead; one is the double-track span of the Central, the other the double-track rail and highway bridge of the Canadian National—a fine example of duplication of effort.

We cross a maze of tracks, and are told we are on the old Rome, Watertown & Ogdensburg, pointed for Rochester via Charlotte. But our dreams of a ride over that freight-only pike are rudely shattered by the banging of draft gear as we back into the trackage facing Sus-

New York Central.

This ancient alignment, approaching Terrace Station from the southeast, dodges between sites of buildings long ago removed. Only MC, TH&B and Niagara trains run here.

pension Bridge. Leaving the train, we look over the old stone station. Inside we find a fine high-ceilinged waiting room, and at the ticket office is a sign informing us of the roads served: the New York Central, the Michigan Central, the Lehigh Valley, the Rome, Watertown & Ogdensburg, etc. The Grand Trunk isn't mentioned; its wicket is a short distance away. We are tempted by the native's invitation to invest a dime in a ticket to Niagara Falls station, and he cautions the agent to put the stamp on carefully. The agent complies, and we find we own a ticket over the New York Central & *Hudson River* Railroad, even in 1944. That was worth a dime!

Outside, the trackage is complex. To the east are NYC yards and the line to Rochester. To the southeast is the Erie interchange, used mostly by the PM. To the west are two bridges used by Canadian National passenger trains. To the south is the line to Buffalo. To the north are the lines to Lewiston and the RW&O, and also the tracks leading to the LV yards.

We discuss plans. We will go over to Canada (a bus is available, but why not walk across the bridge and take the local trolley on the other side?) and ride the Niagara, St. Catharine's & Toronto's interurban lines.

"How are you coming back?" inquires the native.

"What do you suggest?"

"Well, you can do one of three things. You can get the Lehigh tonight. That will be an all-Canadian-National train, except for the engine; you'll have a nice recliner, and can get a bite to eat in a CN parlor-diner. That will be new trackage from North Tonawanda to Depew. Don't bother looking at the sleepers; they are ordinary Pullmans from Toronto to New York and Philly. That's all that is left of the old *Maple Leaf*, as far as international connections go. You'll see the LV at Depew, participate in a little switching, and generally enjoy yourself. Better think about that, seriously.

"Or, you can leave the NStC&T at Welland, and take the TH&B in. You'll have a TH&B

New York Central System.

The Central's proudest locomotives are the shrouded Hudsons, used on many trains with variations in design. This series is frequently used on the Twentieth Century Limited.

coach, and the engine may be CP, TH&B, or NYC. It won't be a new road's mileage for you, though; it is MC track from Welland to Buffalo.

"Or you can break your neck to get back in time for 236, at 5:30."

Now why did he say that? We inquire.

He replies, "Well, the flagman is Popeye. He's a genial brakeman with a big family of his own, and all the kids on the line know him for the candy he carries for them. He gets his name from the ability to twist his face into the well-known cartoon style—he loves to put on a Navy uniform and entertain the Boy Scouts, for instance. And he is a ventriloquist. At the stations, whenever there are kids around, someone will ask him if his dog is under the wheels. He'll poke around with his flag, and the kids will be sure that there is indeed a dog under there. When the train starts up, an anguished squeal will convince some of them that a dog has been killed. He once fooled a man so badly that the fellow was ready to run up to the engine and tell the engineman to wait.

"Popeye is the best investment in goodwill the Central could ever make. The kids love him; the parents all know him. He addresses all the meetings he can attend. Many a company would hire a man to do no more than Popeye does for nothing extra.

"Don't think that Popeye doesn't know his railroading, though. I've never yet seen him behind the well-known stove when a train stopped on the line. He's back there soon enough. One time there was a suspicious character aboard his train—but I can't tell you about that for the duration. Popeye's a member of the National Railway Historical Society, by the way."

Well, that creates a bit of a problem. Which will it be? Poor Popeye will have to wait, it seems; that electric line over in Canada is going to take all day to inspect properly. And railfans always have liked the Lehigh Valley.

This is A. R. L. Ross, alias Popeye, brakeman for the Central Niagara-Buffalo Train 236 and others. He is a born entertainer and publicity man for the railroad, but does his duties well, too.

Robert C. Schell Jr., 422 E. Beardsley Ave., Elkhart, Ind.

Unshrouded, the Hudson is still a well-proportioned engine. It was designed for the Central's particular requirements in the '20's and has been adapted to many other railroads since. The Class K-3 Pacifics were the forerunners of the Hudson in New York Central service, and are still much used. In the bottom photo is No. 2995, another variation of the Mohawk, similar to the engine on page 32. No. 2995 has been rebuilt for heavy passenger duty.

Sunbeam Leaving

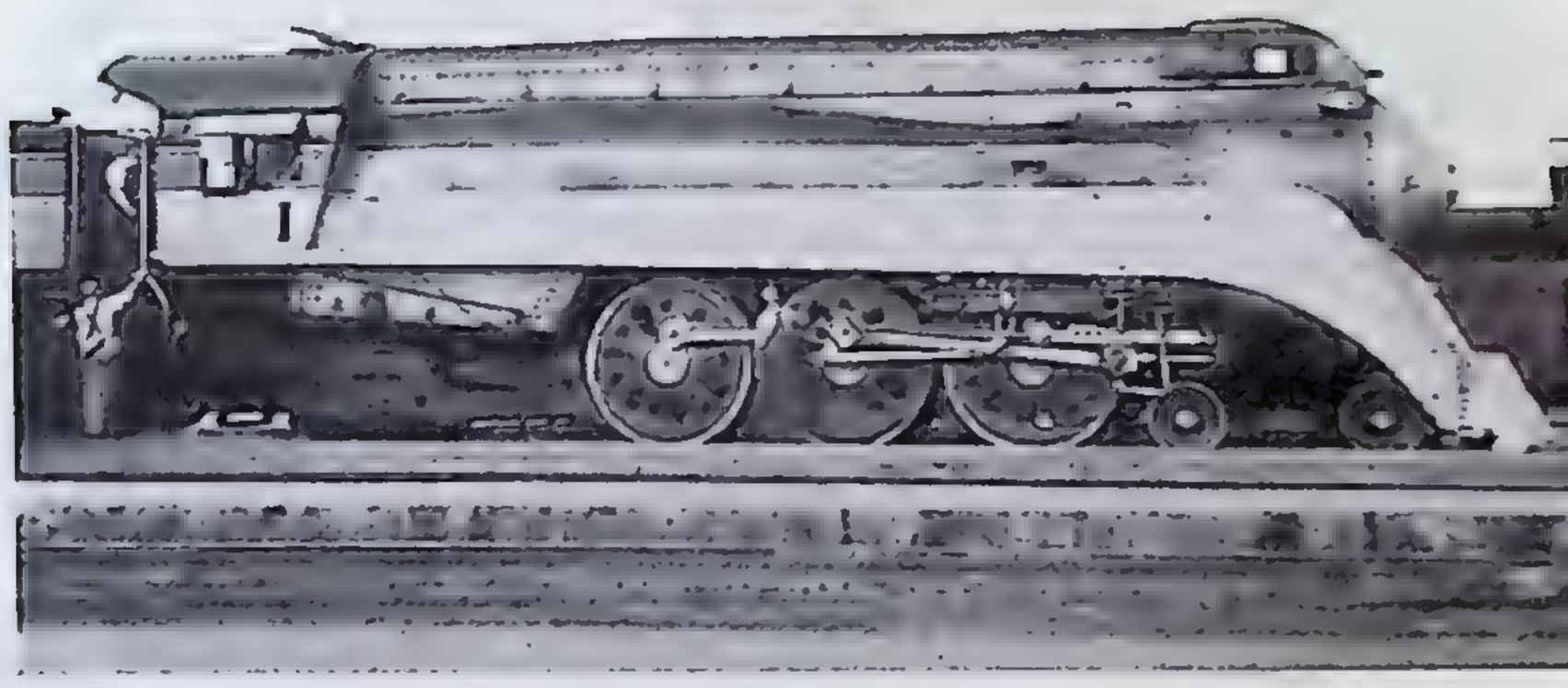
An action sequence, following SP's Sunbeam out of Dallas on the start of its run to Houston

Between Dallas and Houston, railroads have captured an unusually large share of the potential passenger business, and the reason is easy to find. Two railroads run double-daily service on fast schedules with modern streamlined equipment. The Burlington-Rock Island route operates round trips of the *Texas Rocket* and the *Sam Houston Zephyr*, while the Southern Pacific (Texas & New Orleans) operates its *Hustler* both ways in the morning and the *Sunbeam* both ways in the afternoon.

The *Sunbeam-Hustler* schedules are worked with two sets of equipment, each train making a morning trip as a *Hustler* and returning in the afternoon as a *Sunbeam*.

Dallas

Photographs by Lieut. Peter Stewart, Dallas, Tex.



The service was inaugurated in the fall of 1937 with the afternoon trains only, but public patronage soon made possible an expansion of the schedule into a full round trip each day for each train.

At Dallas these trains use the Union Station, also used by Burlington, Rock Island, Frisco, Katy, Cotton Belt, Santa Fe and Texas & Pacific. Train arrivals and departures in this busy station are pretty well spread through the day. Five o'clock is *Sunbeam* leaving time, and our photos follow the action of getting ready to leave, pulling out of the station, and the first few minutes on the road:

4:45 The fireman puts the train number in the indicator frame (lower left and in closeup, upper left). The heavy Pacific locomotives used for this service have been specially streamlined and painted in a style similar to the *Daylight* engines used on SP's Coast lines. The bright orange, red and black color scheme harmonizes with the color scheme of the car equipment on the trains, and the arrangement and appearance of the boiler-top "skyline" of the engines is particularly distinctive. These locomotives were rebuilt for the service with 77-inch Boxpok drivers, cross-counterbalanced to assure satisfactory operation at speeds up to 100 miles an hour.

4:48 The engine crew climbs aboard (above and below) while passengers board the train. The stainless-steel-sheathed cars were

built by Pullman-Standard and have Cor-Ten steel structure with extensive use of aluminum for trim. Streamlining extends from the locomotive to the attractively curved rear end. The regular coaches for this service are in articulated pairs.

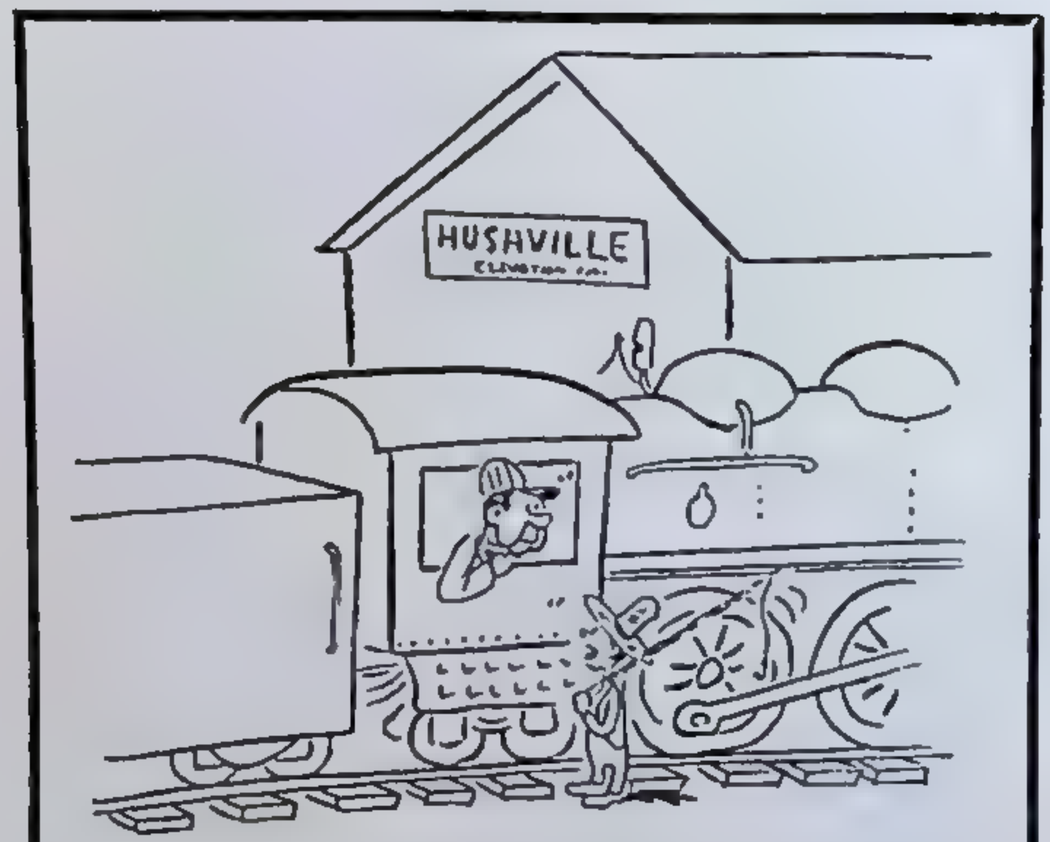
5:01 The signal has been passed and she's on her way, a beautifully curved streak of color (below) as she moves over the slip switches in the lead.

5:02 Past the coach yard (right) and gathering speed for the 34-mile stretch to Ennis, junction of the Fort Worth line. Notice the Texas Electric car on the viaduct in the background. Sharp-eyed readers will see from the train number that this photo shows the morning train, the *Hustler*.

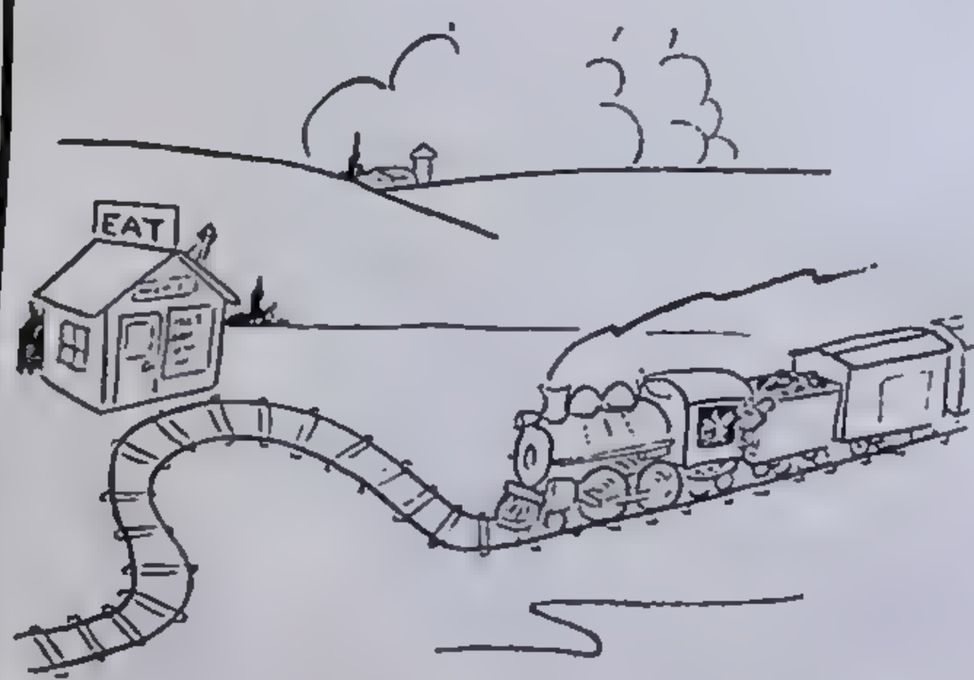
5:25 Up to speed and heading for Houston, where Southern Pacific uses its own Grand Central Station. (There are two other stations as well.) The 264-mile run takes 265 minutes for the *Sunbeams*, which make only two conditional stops along the way, and about an hour and a half longer for the *Hustlers*, which make a dozen regular stops and as many conditional stops.

In addition to the streamlined service on the Southern Pacific and Burlington-Rock Island, three other roads share in the passenger traffic between Houston and Dallas-Fort Worth. These are the Missouri Pacific, Santa Fe, and the Katy.

The unusually large number of military establishments in Texas adds to the ordinary commercial and war travel with the result that trains in this area are more crowded than is the case elsewhere. Overnight train service between the two centers is offered by four of the five roads, and in most cases these are through trains to points farther north.



"I'll bet it's fun to run that engine with its 25" x 28" cylinders, 77" drivers, and tractive power of 41,534 pounds, with a booster which adds 12,300 pounds of additional tractive power!"



"I'd go out of my way anytime for a good hamburger!"

"It saves dynamite for the war effort!"

Ready for Russia

These five-foot-gauge locomotives were assembled at Portland, Ore., after shipment from the locomotive works

Press Association, Inc.

Mexican Workmen on New Haven

Still wearing sombreros and shawls, these Mexican laborers, some of 300 imported by the New York, New Haven & Hartford Railroad to ease the labor shortage, find the climate a bit chillier than it is at home as they work on the tracks at New Haven.

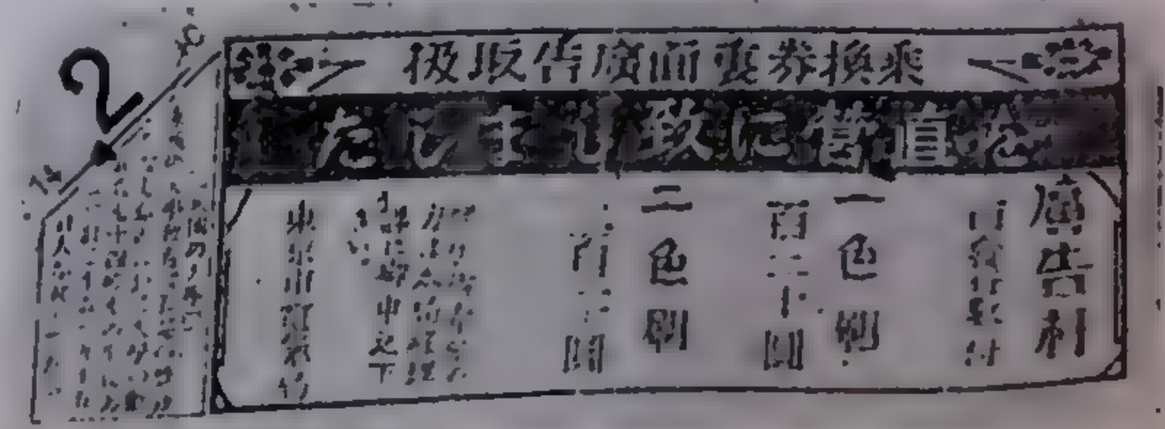
Matches Taboo

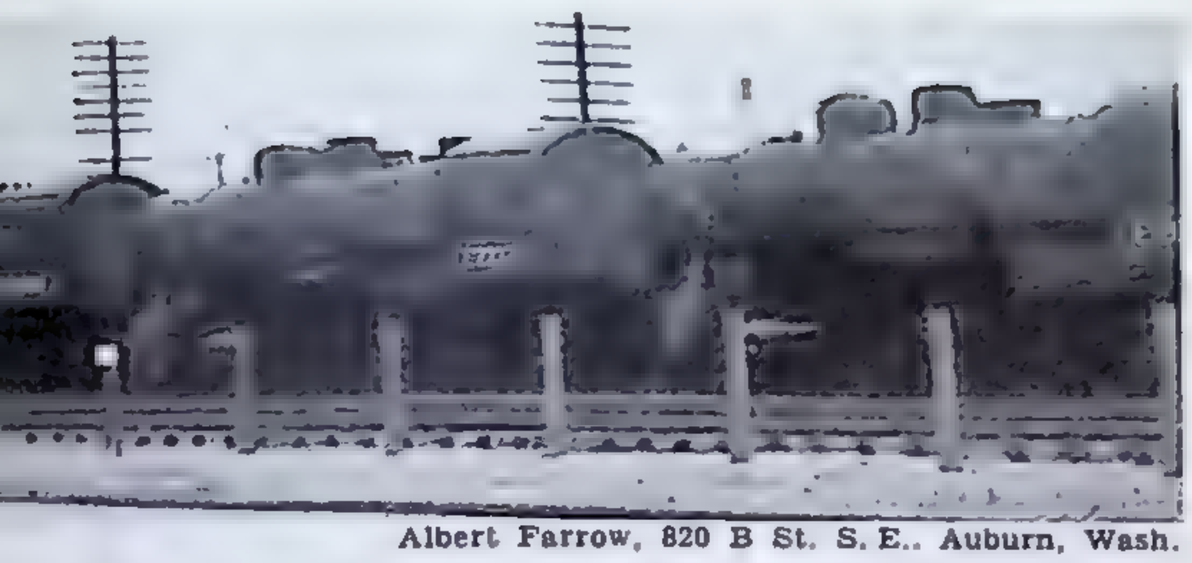
Back in the 1880's the Old Colony Railroad, now part of the New Haven system, was taking no chances. An old freight receipt said, ". . . gun powder, friction matches, and light combustibles will not be received on any train." We wonder what the old-time freight-traffic manager would say about all the combustibles of war being carried on railroads today!

Railroads carried approximately 130 million tons of Army freight and express during 1942 and 1943.

Tokyo Trolley Transfer

Below is a streetcar transfer on the back of which is a map (opposite page) of the city of Tokyo. The heavy line represents the route from which the transfer was issued, and the place of transfer is punched at the inter-





Albert Farrow, 820 B St. S. E., Auburn, Wash.

con flat cars—boiler on one flat car and running gear on another. After the superstructure is in place, the locomotives are loaded on boats and shipped to Russia.

Wouldn't it be nice if:

. . . after the war this became a practice of *all* the railroads? Prior to Pearl Harbor it was possible to ship your automobile via railroad from Chicago to Miami for one and one-fourth the price of a first-class passenger ticket. To do this it was necessary to purchase at least two more first-class tickets. Your car was sent a day or two ahead and when you and your wife arrived in Miami you were paged as you stepped from the train. Your car was parked, waiting for you to drive it away.

Peter Bauer.

. . . the Wisconsin Central (Soo) put on some streamlined motor trains which would provide modern passenger service for the forgotten folk on the line between Neenah-Menasha and St. Paul? One such train could make a round trip daily between Marshfield and Chicago and another between Fond du Lac and Minneapolis. This would also give the people of the Fox River Valley much-needed service to St. Paul and Minneapolis.

Friend of the Railroads.

. . . as soon as possible after the war the Milwaukee Road, the Burlington-Great Northern and the Burlington-Northern Pacific would establish every-third-day coach streamliners between Chicago and Seattle? With alternate departure dates, daily streamlined service would be had between these points as there now is between Chicago and Florida.

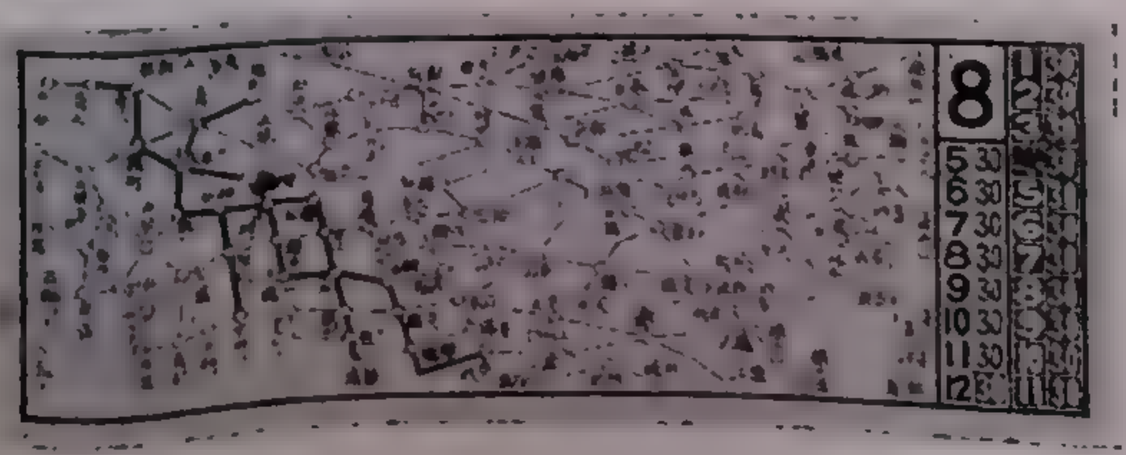
Jim Scribbins.

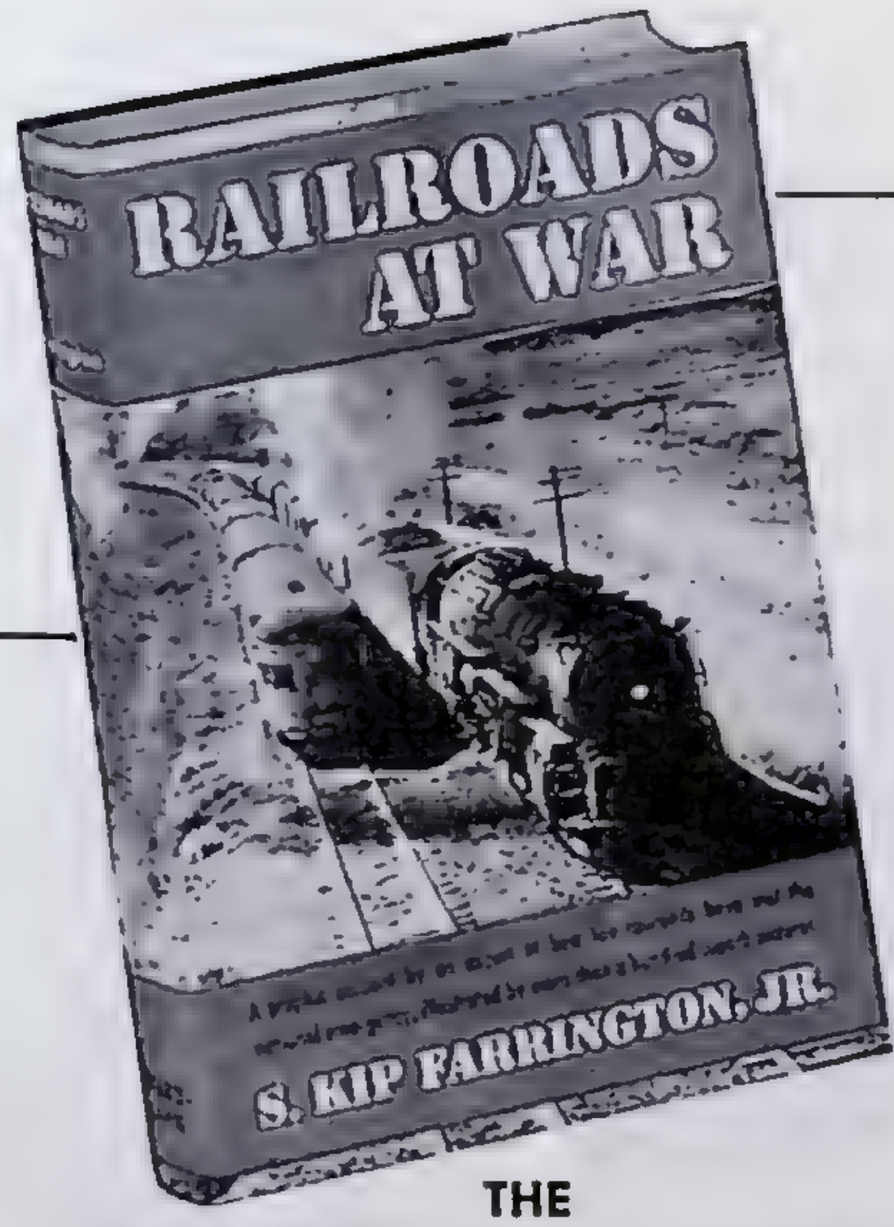
[Mr. Scribbins will be interested in the item "To Streamline *Empire Builder*," page 5.—*Ed.*]

All contributions to this department must be addressed to "Wouldn't It Be Nice If" Editor, Trains, 1027 N. 7th St., Milwaukee 3, Wis.

Tractive power of steam locomotives averaged 52,548 pounds at the end of 1943, the highest ever recorded and an increase of 34 per cent over 20 years ago.

section of the lines. Notice that while Japanese characters are used in general, Arabic numerals are used to show the time the transfer was issued. Karl F. Baldwin of Berkeley, Calif., who sent the transfer to TRAINS, comments that the map is subject to revision after the Allies visit the city.





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Introduction by

James V. Forrestal, Secretary of the Navy

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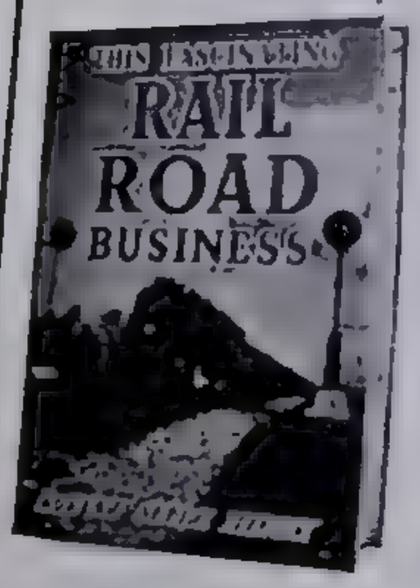

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New Railroad Books

RAILROADS AT WAR, by S. Kip Farrington Jr. 304 pages, 5½" x 8¼". More than 100 illustrations. $4. Coward-McCann, Inc., 2 W. 45th St., New York 19, N. Y.

THE author undoubtedly scraped a few pounds of railroad soot and grime from his clothes and had a pressman mix it with the ink used to print this book. From the first sentence to the last, the text reeks with the aroma of hot steel, smoke and steam. Farrington takes you with him on his journey over the rails of the nation's greatest industry as it fights the nation's greatest war. When you have finished the book you *know* our railroads at war. Anyone reading it will never forget the tremendous debt America owes those railroads and the men who fought such a memorable battle on them.

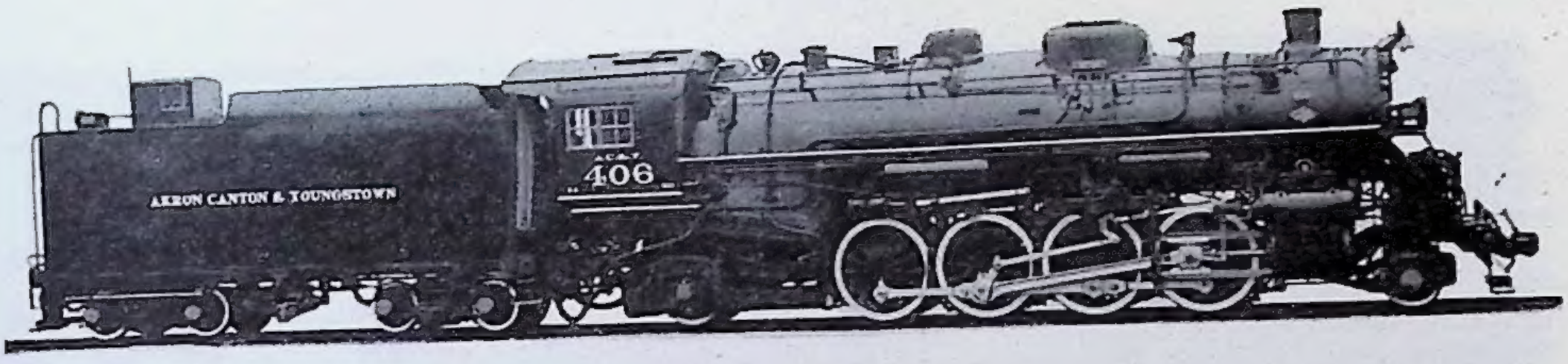
An introduction by the Hon. James V. Forrestal, Secretary of the Navy, vividly summarizes the teamwork between the railroads and the armed forces. More than 100 superb pictures, many by Preston George, Richard H. Kindig, Otto C. Perry and H. W. Pontin, four of America's master photographers, have been used as illustrations.

CABLE CAR DAYS IN SAN FRANCISCO, by Edgar M. Kahn. Revised edition. 134 pages, 7" x 10". $3. Stanford University Press, Stanford University, Calif.

THIS delightful book takes you back to the glittering days of Mark Hopkins, Stanford, Crocker, Huntington—all Nob Hill, that most exclusive hill where the wealth of gold mines and railroads was used in a great attempt to outdo paradise. The book is more than just an account of a mechanical invention; it is a bit of old San Francisco and its people brought to light a half century later.

The cable cars were an American institution which revolutionized urban transportation all over the world. In many cities the first electric street railroads were merely improvements on the existing cable lines, and even today cable railroads of various sorts are found in all parts of the world.

Since the first edition of *Cable Car Days* was published in 1940, all but one of the remaining cable systems have been discontinued. Mr. Kahn has brought the story up to date in the revised edition, and has added new material and a map of the Market Street cable system to the appendix. More pictures are also included, and the quality of the lithographic reproduction is excellent.



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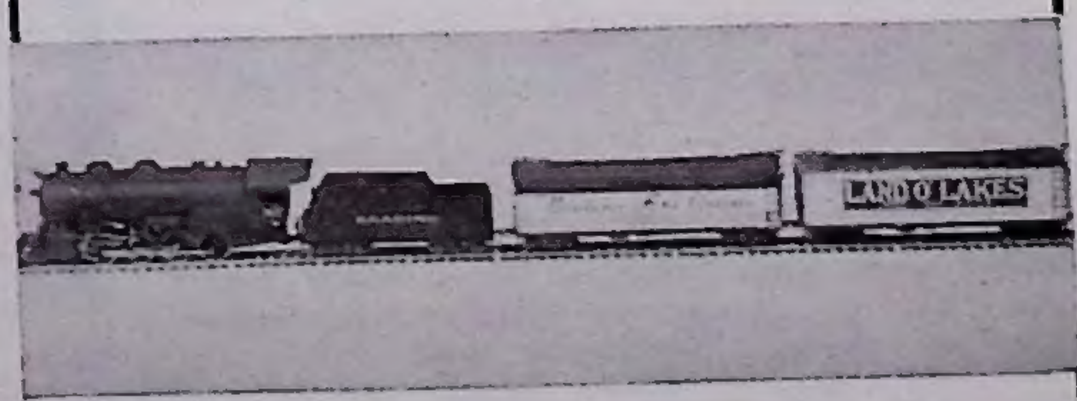

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Post-Mortem

In the past, the *Saturday Evening Post* has scooped most magazines and many newspapers by printing articles that became matters of national interest just at the time they appeared in the *Post*. In the November 4 issue the *Post* carried a commentary on the Newfoundland Express in its Report to the Editors column. This reached *Post* readers just about the same time TRAINS readers were getting their copies of the November issue containing a feature article on the Newfoundland Railroad. Heh, heh.

Americans have gone over the top in every War Bond drive. The sixth drive quota will undoubtedly be surpassed too, but just to make sure, why not dig a little deeper and get your extra Bonds now? One sure way of bringing Victory nearer is to support the fighting men of America throughout the world. You can support them with War Bonds, and at the same time make your own future more secure. Remember, also, that War Bonds make excellent Christmas gifts.

We do a bit of lifting from page 31 of the January 1941 TRAINS: "When I make business dates in other cities I like to keep them, on the dot." And again, "I can plan my time definitely with a timetable." These statements, illustrating how you can bank upon the railroads, were taken from the story "I Like Trains," by A. C. Kalmbach. But A. C. K. came in for a bit of ribbing when, last week, he missed the C&NW's *Peninsula 400* out of Chicago for Milwaukee. The staff thinks the editor of TRAINS could do better than that.

These back issues of TRAINS are still available: January, 1942; all of 1943 except January and July; all of 1944 except January. They may be procured at the regular price of 25 cents each.

Prize winners in the 1944 TRAINS Competition are:

First prize, $150: "Southern Pacific," by Richard Houghton, R. F. D. 1, Box 104-A, Los Gatos, Calif.

Second prize, $100: "Western Pacific Bieber Line," by Philip C. Johnson, 341 Giannini Hall, University of California, Berkeley 4, Calif.

Third prize, $75: "Brazilian Railroads," by Lieut. Charles S. Small, U.S.N.R., c/o Sidney A. Small, 256 W. 12th St., New York 14, N. Y. [This really consists of two parts: the railroads of northern Brazil and the Great Western of Brazil.]

Fourth prize, $50: "The Little Giant" (Delaware & Hudson), by William T. Coniff, 4311 Prospect Ave., Cleveland, O.

Three fifth prizes of $25 each: "Manitou & Pikes Peak," by Morris W. Abbott, 23 Bedford Ave., Milford, Conn.; "Richmond, Fredericksburg & Potomac," by E. L. Thompson, c/o Passenger Traffic Dept., B&O RR., 1508 H St., N. W., Washington 5, D. C.; "South African Railways," by J. D. Mahoney, 59 Bletsoe Ave., Spreydon, Christchurch, N. Z.

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Correspondence

I often wonder why it is that trainmen delight in having the cars hotter than hell on any and all occasions. Perhaps it is too much work for them to occasionally shut or open the steam cocks, or perhaps it's the to-hell-with-the-public, let-'em-freeze-or-cook attitude.

Arthur J. G. Illian, N. Y. Cotton Exch. Bldg., New York 4, N. Y.

In the article "Invasion Railroads" [October 1944 TRAINS], the picture on page 29 has an erroneous caption, Signal Corps notwithstanding. The engine shown is a 4-8-2 French Etat Railway System machine, a well-known World War I type. The only engines taken over from here in 1917-18 were 2-8-0's of various design. The largest number were those belonging to the American R. O. D., others belonged to the British R. O. D., and a few were bought directly from the French Railway companies just previous to our getting there. In addition, there were a few tank engines and a handful of 4-6-0's of a light type which had been transferred from some source in the United States.

Edward C. Taylor, 17 Ashland St., Taunton, Mass.

I had quite a time visiting and riding the Oahu Railway in Hawaii. That's one narrow-gauge outfit that isn't folding up. It needs more power, if anything, but has two new Diesel switchers that are beauties. I've seen 10-car passenger trains packed daily, usually pulled by 4-6-0's that really step along. The biggest freight locomotives are 2-8-2's with outside frames—dead ringers for the D&RGW Mikes. I've also seen 50-car freights triple-headed because of grades. . . . I don't believe there will ever be any railroads in New Guinea. They would be too expensive to build and would provide no revenue, as the natives are still pretty wild. They own a garden, a pig, a knife and a spear, which is all they want or need. Food and clothing are no problem.

Lieut. Walter J. Masters, Inf., U. S. Army.

I was the only foreigner on the train from Matamoros to Monterrey, Mexico. The conductor sat in the first seat with his feet up on the opposite seat, chewing and spitting in the aisle. Immediately above him was a sign: "*Los pasajeros no decen poner los pies sobre los asientos, ni escupir fuera de los escupideros.*" I had an impulse to tell him that I did not know Spanish, and ask him what that sign meant, but I thought that would be rather tactless.

Albert Sprague Coolidge, 38 Coolidge Ave., Cambridge 38, Mass.

The government-owned South African Railways and Harbors (ports are also under railway administration) controls over 13,000 miles of track. Most of it is of 3′-6″ gauge, and the remainder is 2-foot gauge. Approximately 600 route-miles are worked by electric traction. The latest engines of the 23 class are the largest non-articulated locomotives in the world on 3′-6″ track. With their 12-wheeled tenders they weigh 215 tons, and develop approximately 43,200 pounds tractive effort at 75 per cent boiler pressure, 225 pounds per square inch. In prewar years the SAR carried 96 million passengers, which isn't bad for a country with a total population of just over 10 million. Newest passenger cars are 65 feet long and 9′-3″ wide, and are fully air-conditioned. Dining cars are of the twin type: one car is for dining purposes only and seats 46 people, and the other contains the kitchen and accommodations for the dining-car stewards and cooks. The two cars are always coupled together. Club cars (fully air-conditioned) are also attached to the principal trains.

Roger M. Perry, South African Air Force.

THERE'S A GREAT DAY COMING!

This is the way it will be:

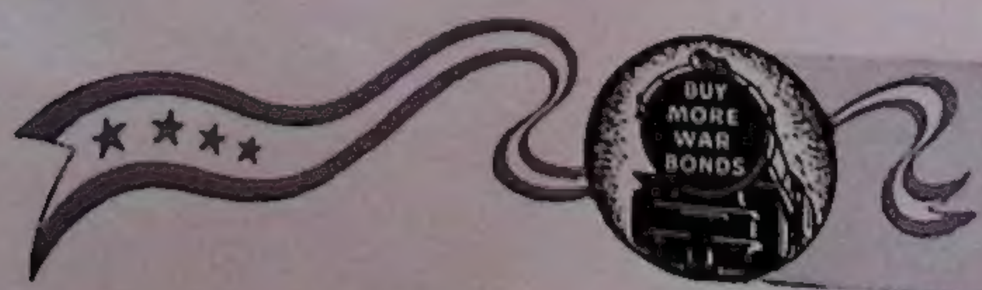
The train will come rolling triumphantly down the rails and halt at your station.

Down the steps will come a lean, hard, confident figure, topped by a grin you've longed to see.

The war will be over — and you can ease the ache that has been in your arms with a long, tight embrace that says all the things you haven't had words for.

Yes, the war will be over. But our work won't. We will have many things to do — for him, for you, for the finer future we're fighting for — and it is our aim to do them. You want, and we want to give you, finer cars, better roadbeds, faster, more modern motive power to replace the hard-working equipment now rapidly wearing out under war's doubled load.

The big thing is that the great day that's coming can be more than a day of victorious reunion. It can also be a day of fresh starting in the shaping of a finer America. For him you are waiting to welcome home — for you who have been so patient with war-imposed travel limitations — we intend to do our share in making it just such a day.



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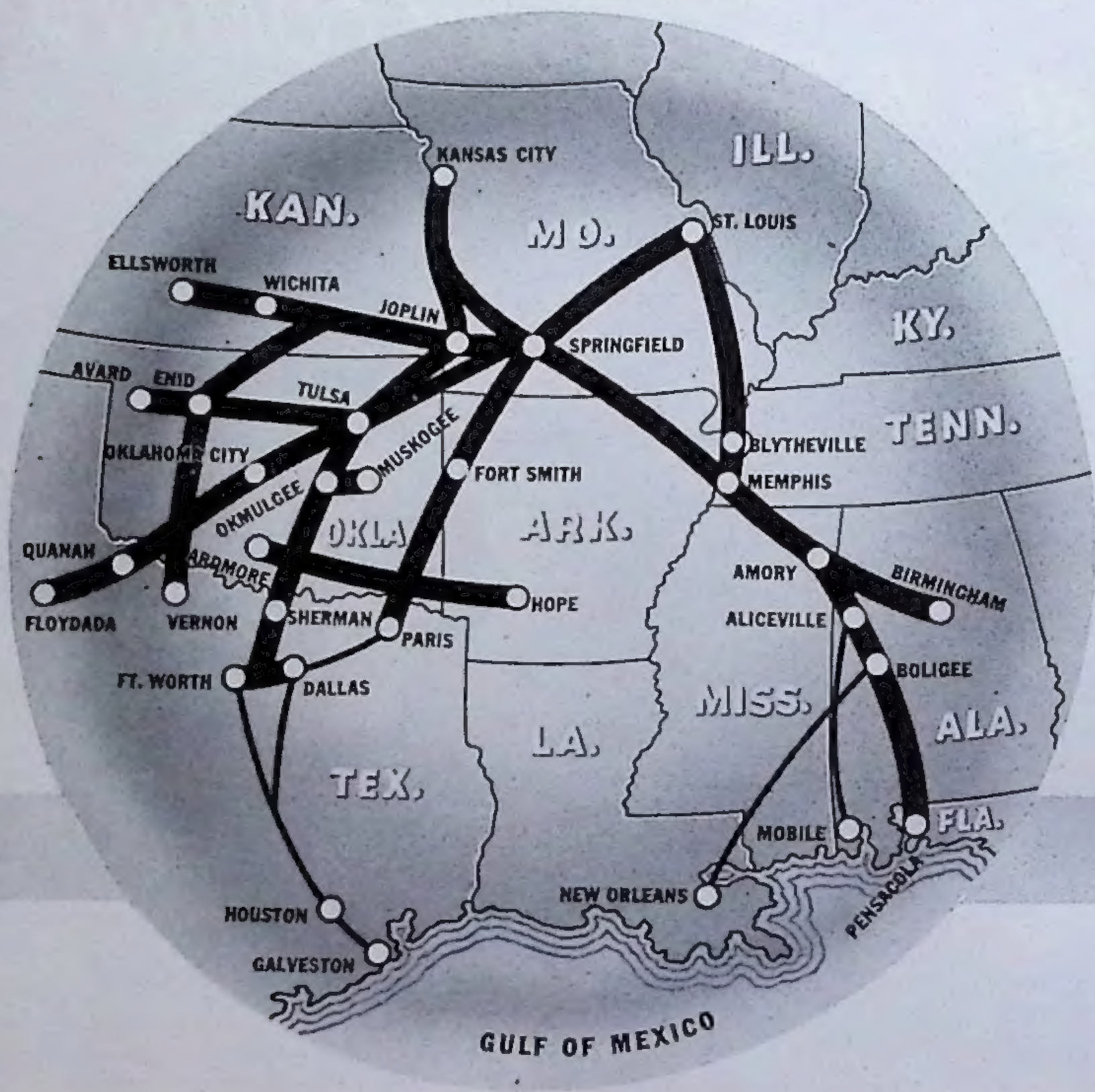

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